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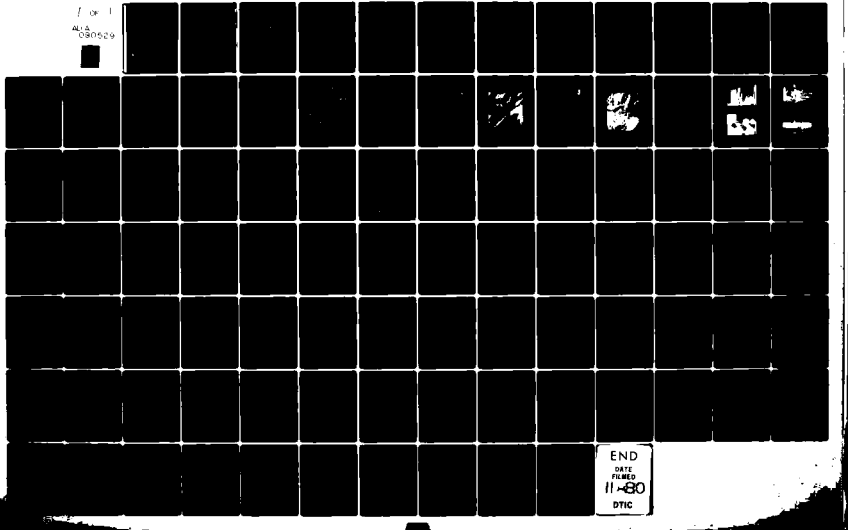

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September 1980

SUMMARY OF PACIFIC MISSILE TEST CENTER METEOROLOGICAL SUPPORT AIR QUALITY ASSESSMENT MODEL (AQAM) TESTS

at the
Naval Air Station, Miramar, 1 to 8 August 1979

NAVAL AIR PROPULSION CENTER WORK REQUEST
N62376-79-WR0010 and N62376-80-WR00036

By

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PACIFIC MISSILE TEST CENTER

AN ACTIVITY OF THE NAVAL AIR SYSTEMS COMMAND

This work was prepared by **Y. K. Yamamura**, Principal Investigator; **R. A. Helvey**, Meteorologist; **J. Rosenthal**, Meteorologist; **W. W. Choate**, Meteorological Technician; **D. Musquiz**, Meteorological Technician; and **M. Bahu**, Electronic Technician, under Naval Air Propulsion Center (NAPC) Work Request N62376-79-WR0010 and N62376-80-WR00036 (NAS Miramar Air Quality Program (Meteorology)).

Mr. D. A. Lea, Acting Geophysics Officer; **Mr. C. Elliott**, Project Engineering Manager; **Dr. T. C. Lockhart**, Associate Range Operations Officer; and **Mr. W. L. Miller**, Associate Range Directorate, have reviewed this report for publication.

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GOES satellite imagery	Monitoring sites	Near-real-time computation
Joint frequency distribution	Rawinsonde soundings	

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This report sumarizes the PACMISTESTCEN support for the Air Quality Assessment Model evaluation tests at NAS Miramar, which consisted in planning of measurement periods; operational day-to-day forecasts; surface and upper air measurements using high resolution modified rawinsondes; onsite and post operational data evaluation, reduction and analysis; and meteorological interpretation services.

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The authors would like to acknowledge the support received from Mr. L. Hall and the Geophysical Instrumentation Branch in installing and maintaining the rawinsonde equipment and enabling the upper air measurements to be completed satisfactorily for the Air Quality Assessment Model Tests at the Naval Air Station, Miramar. Appreciation is also due to Mr. D. Lea, Mr. R. Clark, and Mr. R. de Violini for their valuable scientific guidance and assistance in the data presentation and preparation, to AG2 M. Gilbert and AG3 B. Huess, Naval Support Force, Antarctica for their invaluable assistance in the rawinsonde measurement effort; to the PACMISTESTCEN Weather Center for their up-to-the-minute remote observations and forecast support, and to Mr. C. Elliott, Project Engineering Manager, for assistance in coordination.

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CONTENTS (Continued)

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ACRONYMS

APCD	Air Pollution Control District
AQAM	Air quality assessment model
CDC	Control Data Corporation
EPA	Environmental Protection Agency
MYF	National Weather Service at Montgomery Field
NAPC	Naval Air Propulsion Center
NAS	Naval Air Station
NCC	National Climatic Center
NKX	Naval Weather Station At NAS Miramar
NPS	Naval Post Graduate School
NWSD	Naval Weather Service Detachment
PACMISTESTCEN	Pacific Missile Test Center
RAOB	Rawinsonde Observation (installation)
SMOR	Summary of Meteorological Observation, Radiosonde/Rawinsonde
SMOS	Summary of Meteorological Observations, Surface
TDF	Tape deck format

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SUMMARY

This report summarizes PACMISTESTCEN contributions to the Air Quality Assessment Model (AQAM) validation tests at the Naval Air Station (NAS), Miramar, 1 to 8 August 1979, and summarizes the meteorological conditions employed in the final analyses of the AQAM for the Miramar test period.

NAS Miramar is located about 15 miles north of downtown San Diego and about 8 miles east of the Pacific Coast.

Using the statistical guidance developed, a set of criteria were formulated on which to base recommendations for the scheduling of the measurement period.

During the selected measurement period itself, the PACMISTESTCEN provided operational day-to-day forecasts to plan monitoring activities as well as both surface and upper air measurements to correlate with emission measurements and to serve as model input. Post-operation and on-site data evaluation, reduction and analysis, as well as meteorological interpretation services were also provided.

Publication *UNCLASSIFIED*.

INTRODUCTION

In response to the Navy's concern over the impact of its aircraft operations on local air quality and its inability to conduct an air quality monitoring program at each naval air station (NAS), a generalized computer model was developed that could predict the effect of aircraft operations on off-station air quality. The Naval Air Propulsion Center (NAPC) established a two-phase program to generate an Air Quality Assessment Model (AQAM) applicable to Navy flight and ground operations and to validate this model at a high-activity naval air station. The first phase of the program was conducted by the Naval Postgraduate School (NPS)[1], which developed an Air Quality Assessment Model that predicts air quality levels up to 5 miles around a naval air station. The NPS model considered station activity according to type and frequency of aircraft, meteorology, other station emission sources, and off-station emission sources.

The second phase, model validation, is being conducted at NAS Miramar. NAS Miramar was selected because it has the highest intensity of flight activity of all Naval Air Stations. A major requirement in validating the model is to compare actual air quality measurements with model predictions based on actual meteorology, flight activity, and on/off-station emission sources. Such a model validation is being performed using information compiled from a summer test period at NAS Miramar. During this test period a concerted effort was made to obtain data on aircraft activity based on time of day, frequency, and aircraft type by NAPC and NPS personnel; station air quality levels measured by the Environmental Protection Agency (EPA) and Northrop Services, Inc., personnel; and a variety of meteorological conditions by Pacific Missile Test Center (PACMISTESTCEN) personnel. The PACMISTESTCEN meteorological support consisted of surface and upper air measurements, numerical analysis, climatological planning, and day-to-day predictions and interpretations of Geophysics Division meteorologists and technicians at Point Mugu.

The NAS Miramar Duty Forecasters, the San Diego Air Pollution Control District, and the National Weather Service upper air measurement team at Montgomery Field also provided valuable meteorological assistance. This report summarizes the PACMISTESTCEN contributions and meteorological conditions that can be used in the final analyses of the AQAM for the Miramar test period.

LOCATION OF THE TESTS.

The Naval Air Station Miramar is located near the coast of southern California and has a Mediterranean-type climate. Temperatures are usually mild, and a high level of maritime influence prevails. Summers are characterized by frequent low clouds in the early mornings and warm, sunny days with infrequent rainfall, mainly inland thunderstorms of tropical origin. Winters are mild, punctuated by rainy periods advancing from the west and northwest alternating with periods of dry easterly winds. The predominant wind direction at NAS Miramar is northwest; seabreezes are dominant during daytime hours, and light north or northeast land breezes are typical at night. During the warmer months, a strong subsidence inversion layer typically separates moist, cool air below from warm, dry air aloft.

[1] Naval Postgraduate School. *Sensitivity of AQAM Prediction for Naval Air Operations to Meteorological and Dispersion Model Parameters*, by D. W. Netzer. Monterey, California, May 1978. (Technical Report NPS-67Nt78051 UNCLASSIFIED).

Figure 1 shows the location of NAS Miramar, about 14 miles north of downtown San Diego and about 8 miles east of the Pacific Coast. Highway 163 runs north-south along the eastern end of Miramar. Elevation is about 447 feet. Figure 2 gives locations of the EPA air monitoring sites and the PACMISTESTCEN rawinsonde observation (RAOB) installation.

Example • POWER PLANT

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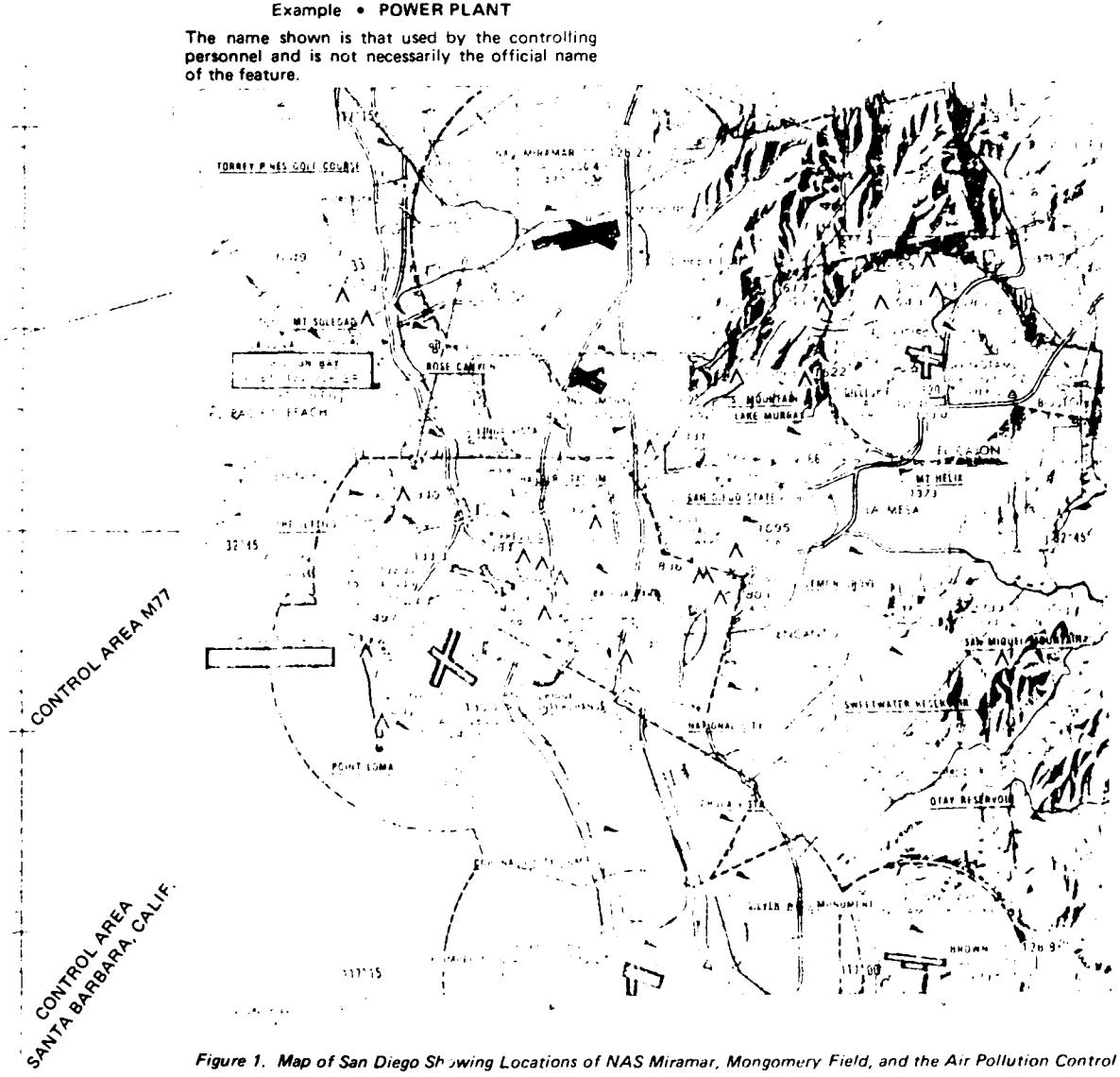
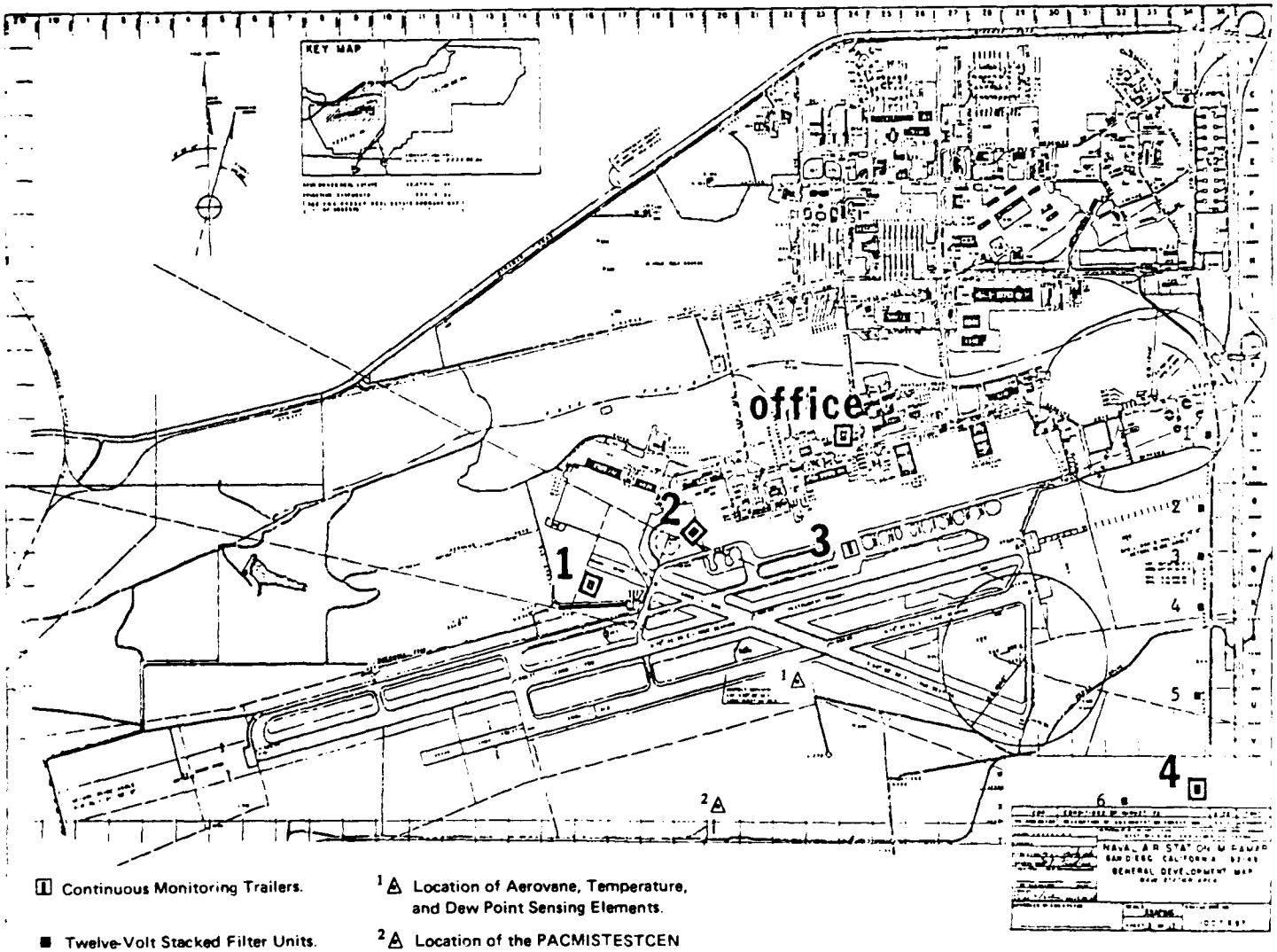


Figure 1. Map of San Diego Showing Locations of NAS Miramar, Mongomery Field, and the Air Pollution Control District, San Diego



Continuous Monitoring Trailers.

Twelve-Volt Stacked Filter Units.

[1] Location of Aerovane, Temperature, and Dew Point Sensing Elements.

[2] Location of the PACMISTESTCEN Rawinsonde Unit.

Figure 2. Map of the MAS Miramar with AQAM Measurement Sites Shown.

PLANNING AND SCHEDULING OF THE TESTS

A basic objective of the Miramar tests was to take measurements under what could be considered representative meteorological conditions so that test results would apply in general to prevailing conditions at Miramar and not to unusual conditions of chance. The monitoring sites were located with this in mind. The PACMISTESTCEN acquired a significant amount of climatic data from the National Climatic Center (NCC), Asheville, North Carolina, so that the tests could be scheduled under the desired meteorological conditions. The statistical data were processed by PACMISTESTCEN on the Control Data Corporation's (CDC) CYBER 175 computer to determine seasonal and diurnal patterns for wind, cloud cover, stability, and other parameters.

The following is a list of climatological data for NAS Miramar and adjacent areas obtained by the PACMISTESTCEN from the Naval Weather Service Detachment (NWSD), National Climatic Center (NCC), for the initial effort.

- Monthly, seasonal and annual (day/night) wind distribution by Pasquill stability classes for NAS Miramar (January 1968 to December 1977)
- Magnetic tape copy of surface weather observations in tape deck format 1440 (TDF-14) for NAS Miramar for January 1968 to December 1977
- Paper copies of surface weather observation forms for NAS Miramar for July 1977 (latest available month)
- New Summary of Meteorological Observations, Surface (SMOS), for NAS Miramar
- Summary of Meteorological Observation, Radiosonde/Rawinsonde (SMOR) for San Diego Montgomery Field in which all available data are included
- Magnetic tape copy of upper air observations in tape deck format 5600 (TDF-56) for Montgomery Field for the same period used in SMOR.

On receipt of the climatological data from the NWSD, the PACMISTESTCEN performed a variety of numerical evaluations to obtain representative seasonal, monthly, and area weather conditions for NAS Miramar. From these conditions, the PACMISTESTCEN determined the optimum periods for scheduling the AQAM tests. Upper air and surface weather observations for Montgomery Field (MYF) and NAS Miramar (NKX) were reformatted from TDF-56 and TDF-14, respectively, and PACMISTESTCEN prepared two data files on the CYBER 175 computer system in formats that met the AQAM objectives.

The computation of Pasquill stability class from the surface data base was performed for each hour of the day based on a 10-year period for NKX, and PACMISTESTCEN added the results to the surface data base on the CYBER system. During the software development for stability classes, PACMISTESTCEN meteorologists discovered that under overcast conditions the NCC's STAR* Program, which is used to generate stability data for worldwide climatological applications, computed incorrect stability classes (classification 2) for ceilings less than 7,000 feet. Independent evaluation by PACMISTESTCEN revealed that stability class 3 must be assigned to these conditions. Since the stability class is an important parameter not only for the Navy's AQAM model validation effort but also for other pollution-potential assessments that are based on these types of climatic statistics, NCC was contacted in May 1979, and briefed on the discrepancy in their procedure.

Computations and evaluations of mixing layer depth, the depth to which pollutants can be expected to disperse under maximum daytime surface temperatures, were carried out. These computations and evaluations were based on the upper air data base from nearby Montgomery Field coupled with the surface data based from Miramar.

*NCC's STAR Program is the computer program that determines Pasquill stability classes from hourly airport observations.

The PACMISTESTCEN then used these data to construct a 4-way joint frequency distribution table, with wind speed and direction, and a Pasquill stability class for any desired period of the day and month of the year at Miramar. Results of a regression analysis[2] demonstrated that the coefficient of determination for predicting the summer mixing depth at 1600 Pacific Standard Time (PST) was high (about 83.5 percent). However, the mixing depth at 1300 PST alone accounted for almost 76 percent of the total variance in the mixing depth at 1600 PST. This indicated that the mixing depth at 1300 PST could be used to predict mixing depth conditions 3 hours later near the time of maximum surface temperature at Miramar. This method of analysis was useful on days when there was considerable diurnal variation in the mixing layer depth.

Using the statistical guidance developed, the PACMISTESTCEN formulated a set of criteria on which to base recommendations of two separate 1-week measurement periods (versus the 2-week period originally planned). One week would be in the spring (April or early May) and the second in the summer (July). The rationale for dividing the measurement period into two separate weeks was as follows:

- Minimum background pollution was desired to avoid confusion with aircraft-related emissions during interpretation of results.

- Since prevailing westerly winds were most representative of conditions at Miramar and the three sampling sites were located downwind from the selected pollution sources, test periods were established when westerly winds were likely to predominate.

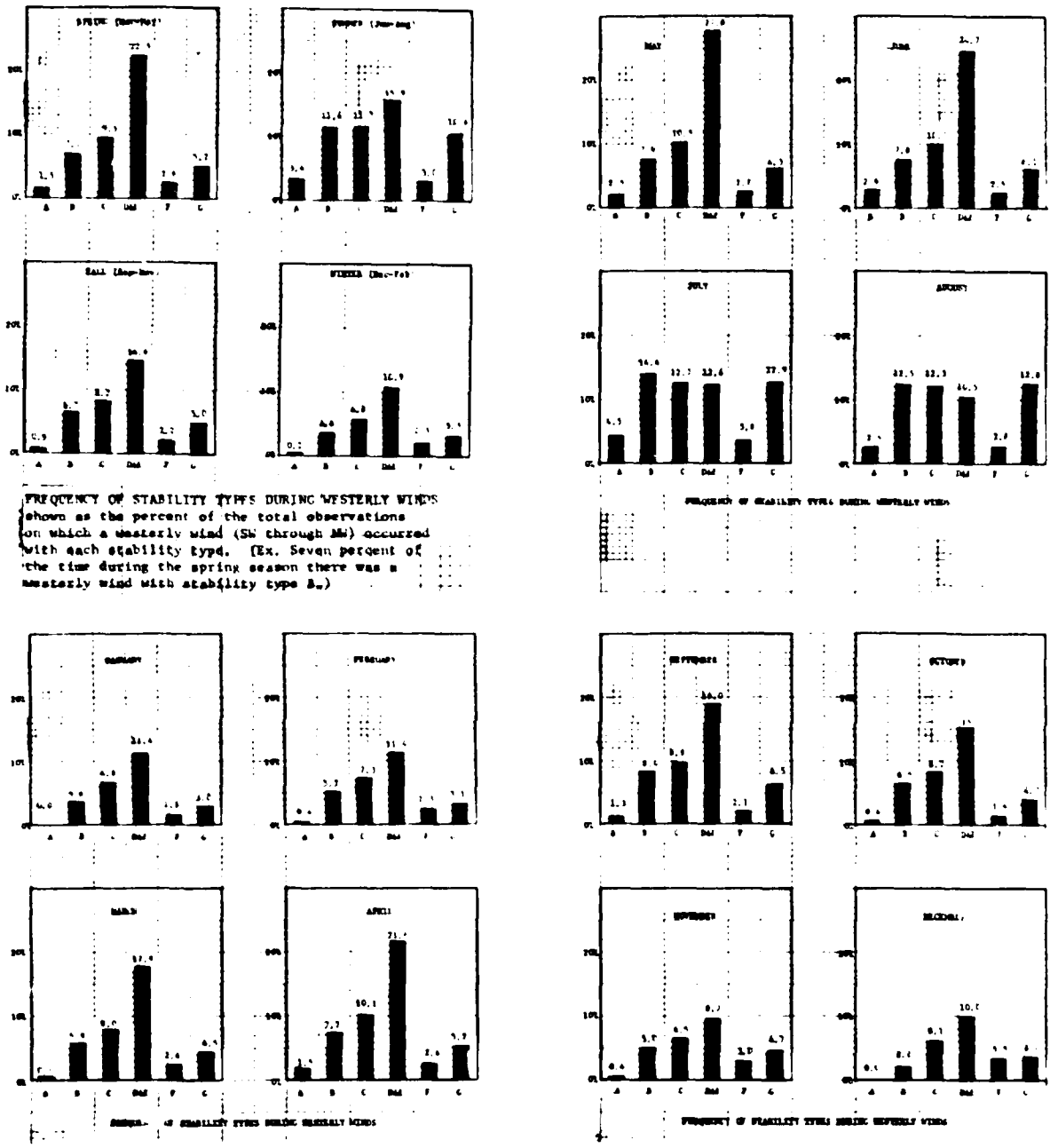
- From November through May, average mixing depth typically exceeded 1,000 to 2,000 feet at coastal sites such as Miramar. During the spring, winds from the west quadrant (southwest to northwest) were frequent (49 percent of the time), with westerly winds greater than 10 knots occuring about 7 percent of the time.

- During the summer, winds from the west quadrant were also frequent (57 percent of the time), and were still sufficiently strong (greater than 3 knots 35 percent of the time) to provide adequate dispersion for the AQAM tests.

- Pasquill stability classes ranging from A through C or 1 to 3, associated with extremely unstable to slightly unstable conditions, were most frequent when winds were from the west. These conditions occurred up to 30 percent of the time for the midsummer months, as indicated in figure 3.

Using climatic conditions as a guide, the PACMISTESTCEN initiated plans for a 1-week measurement period in midsummer. Delays in site preparation resulted in a slight postponement, but the test period (from 1 to 8 August) still occurred during the optimum summer conditions. To meet the requirements set for springtime, when mixing heights were deeper, the PACMISTESTCEN tentatively planned a second week of measurements for the spring 1980. This second measurement effort was canceled due to unavailability of funds.

[2]California State University, Northridge. *Multiple Regression Analysis of Winds, Mixing Depths, and Pasquill Stability Indices at NAS Miramar*, by Gong-Yuh Lin. Northridge, California, 31 August 1979. (Unpublished Report, UNCLASSIFIED).



INPUT DATA PREPARED BY THE NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, NORTH CAROLINA

STABILITY CLASS

A	EXTREMELY UNSTABLE	E	NEUTRAL/NIGHT
B	UNSTABLE	F	SLIGHTLY STABLE
C	SLIGHTLY UNSTABLE	G	STABLE
D	NEUTRAL/DAY		

Figure 3. Frequency of Stability Type During Westerly Winds for Each Season and Month Based on Surface Observations From January 1968 to December 1977 at NAS Miramar.

OPERATIONAL FORECASTS

While the climatic guidance was used to plan the scheduling of the Miramar tests from 1 to 8 August, a requirement also existed for more immediate weather information to determine if and when representative conditions would permit monitoring of operations and emissions to take place throughout the test period.

Each day at about 0600 local time, PACMISTESTCEN meteorologists coordinated via telephone with the Weather Center at Point Mugu (that has a 24-hour-a-day satellite, weather chart and forecasting capability) and Miramar Naval Weather Service personnel, who provided valuable assistance and observations. Using the data supplied by Point Mugu and Miramar, PACMISTESTCEN meteorologists predicted the large- (macro) and small- (meso) scale flow patterns that would affect NAS Miramar. Prior to the start of monitoring at approximately 0800 each day, a weather briefing was given in the main AQAM trailer to provide guidance on expected wind speeds and direction, wind shifts, sun conditions, and mixing layer depths.

GENERAL WEATHER CONDITIONS DURING THE AQAM TEST PERIOD

During the AQAM test period, two distinct synoptic conditions dominated the weather over the NAS Miramar and the San Diego area. During the first four days, a subtropical high pressure system prevailed, with temperature inversion bases ranging from 1,000 to 2,000 feet and seabreezes ranging from 1 to 8 knots (west to northwest direction). For the last four days, middle and high clouds advected into the San Diego area from a weak tropical depression well to the southwest of San Diego. Under these warmer conditions aloft, the mixing layer deepened and reached 4500 feet during the late morning hours on Monday, 6 August. Figures 4 through 7 show the contrasting synoptic conditions depicted at the 500 millibar level (about 18,000 feet) and corresponding/Geostationary satellite imagery for both periods.

Throughout both weather regimes, NAS Miramar experienced west to northwest winds during the daytime hours as originally anticipated from the climatological guidance. On 5 August, a partial exception occurred; westerly afternoon winds were weak following a morning southerly flow associated with an offshore coastal eddy. Approximately 15 minutes of light sprinkles from the higher clouds were also observed on the afternoon of 5 August. In addition to the summertime representative conditions provided by both weather regimes, a variety of mixing heights also occurred that will be valuable for the model validation effort.

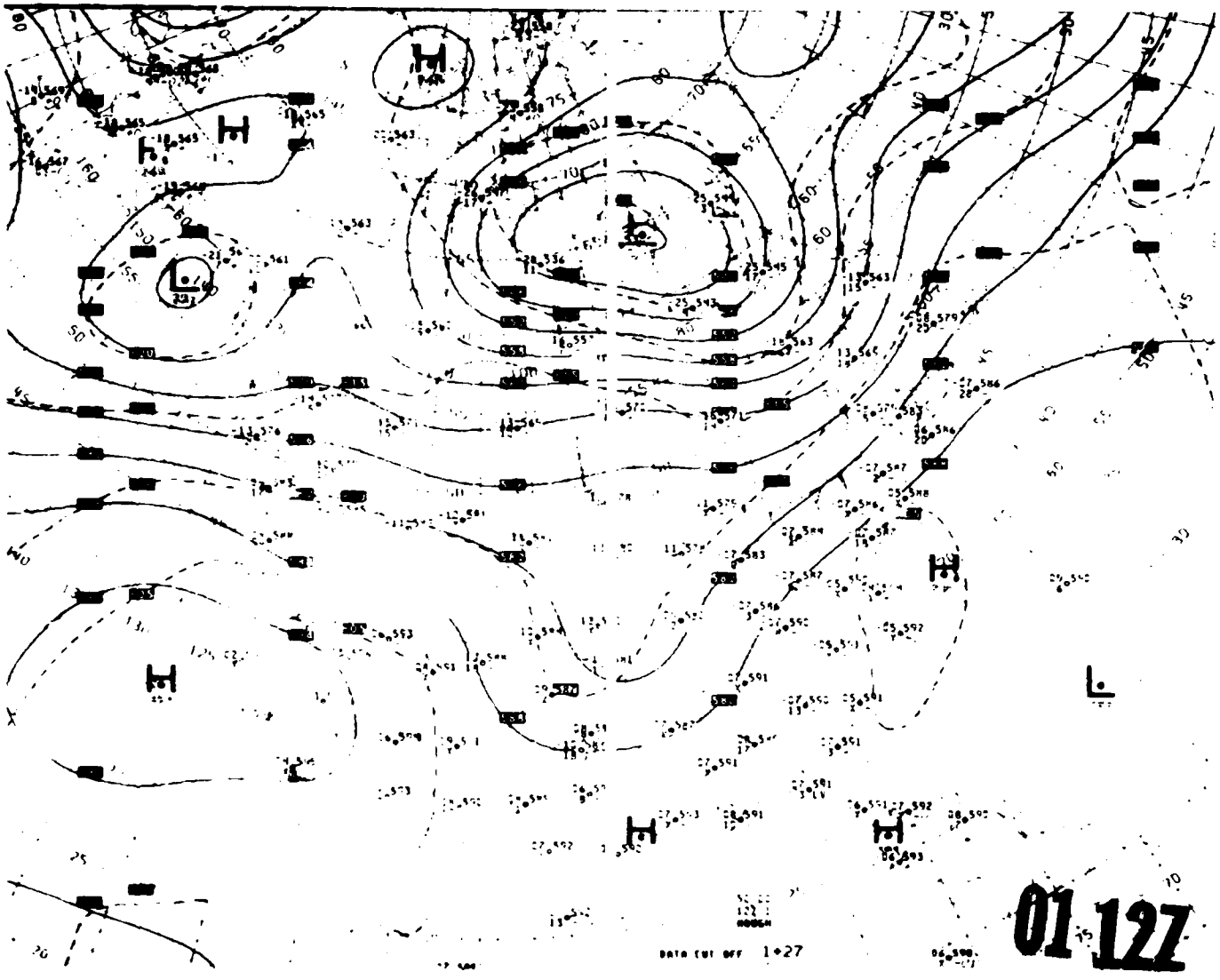


Figure 4. 500MB Heights/Temperature, 1200 GMT Wednesday, 1 August 1979.

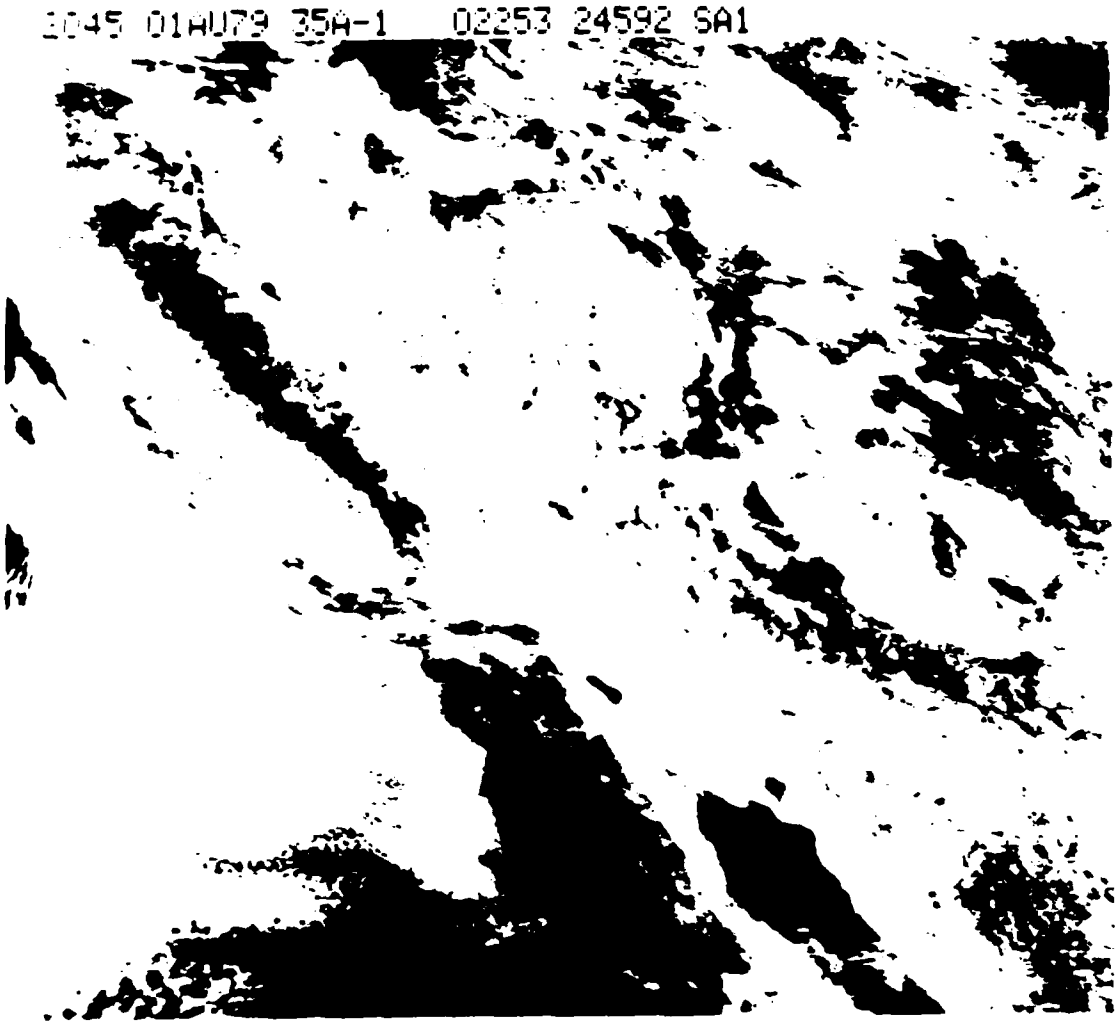


Figure 5. GOES Satellite Imagery of 2045GMT (1245 PST) 1 August 1979 Showing Stratus Coverage Along and Off California Coast.

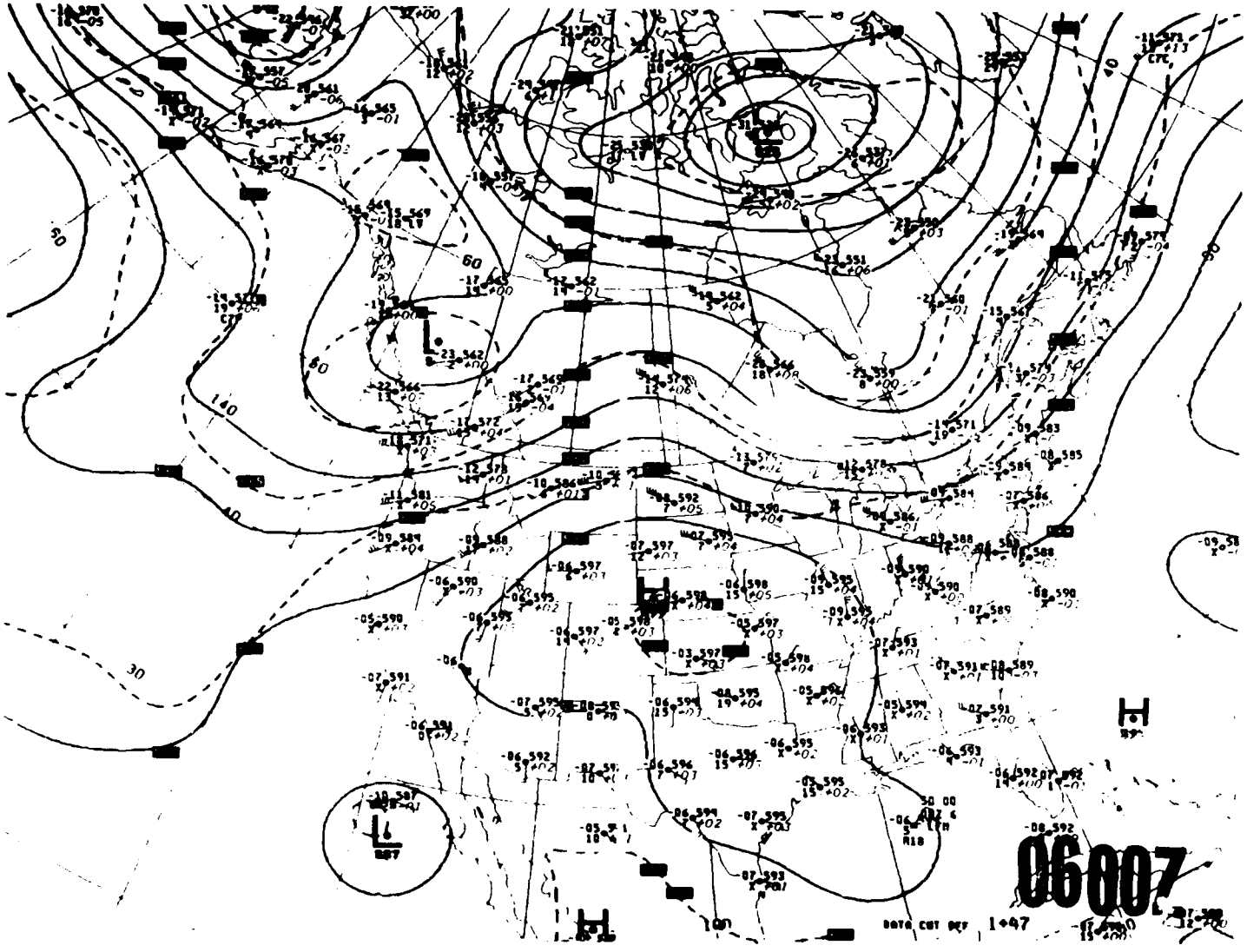


Figure 6. 500MB Heights/Temperature, 0000GMT Monday, 6 August 1979.

Figure 7. GOES Satellite Imagery 1715GMT (0915 PST) 5 August 1979 Showing the Influence of a Southern California Marine Layer Eddy and a Subtropical Depression Over the San Diego Area.

PACMISTESTCEN MEASUREMENTS

The PACMISTESTCEN took upper air soundings by high resolution rawinsondes using rapid-switching modification for detailed sampling, and made surface weather observations at the rawinsonde site located at the southern end of NAS Miramar. These measurements were made by two teams of meteorological technicians, each team composed of 2 members. Together the 2 teams conducted round-the-clock (usually 4 times-a-day) monitoring of mixing height and wind conditions.

The Miramar Public Works Department provided PACMISTESTCEN with measurement facilities consisting of a trailer (figure 8), which housed the rawinsonde receiving and recording equipment (figure 9) and sufficient work space for PACMISTESTCEN to use an HP 9825 desk-top computer. The computer provided onsite calculations of mixing height. Prior to each rawinsonde release, balloons were inflated in a special shroud (figure 10) that was located outside the trailer and adjacent to the helium supplies. The GMD rawinsonde receiver antennae was in a flat area a short distance from the meteorological trailer. This area also provided space for uninterrupted hourly surface weather observations (figure 11).

A primary consideration of all of the upper air measurements was safety and noninterference with existing air operations. To accomplish this, meteorologists, NAS Miramar Public Works, and Air Operations personnel selected an upper air measurement site where free-rising ballons in prevailing wind conditions would have minimum impact on typical Miramar flight patterns. Soon after measurements began, it was apparent that closer communication was needed to ensure that balloon releases would not interfere with low-flying aircraft. Therefore, air operations personnel supplied a walkie-talkie for direct communications with the flight clearance tower (figure 8).

A total of 33 high-quality sounding were obtained during the 8-day period. All but 2 of the soundings were taken without an incident; however, if additional measurement/periods are planned, an alternative upper air measurement site may still be desirable to eliminate the risk to aircraft operations. The PACMISTESTCEN meteorologists compared soundings taken at Miramar with those taken at nearby Montgomery Field. The findings of the comparison are discussed in figure 14 and the RESULTS section of this report. Each day meteorologists recorded surface weather observations on federal meteorological Form 1-10 provided by NWSED, NAS Miramar (NKX). Appendix B contains the official NAS Miramar runway observations, and appendix C contains supplemental PACMISTESTCEN surface observations. The hourly data from NWSED was used as input to compute hourly Pasquill stability classes at NAS Miramar for the AQAM test period. The stability classes were computed in near-real-time using software developed by PACMISTESTCEN for the portable HP 9825 computer. Immediately after the completion of each sounding, all RAOB data were reduced for thermodynamical parameters so that the mixing layer depth for hours between soundings could be computed to obtain more current conditions for inversion base height and associated marine layer conditions over the test site.

The final RAOB data reduction was performed at PACMISTESTCEN. Appendix D gives the output results for each of the input levels for all 33 soundings. Table 1 summarizes all RAOBs for NAS Miramar by day, ascent number, and release time (given in Pacific Standard Time).

Table 1. Days and Times of the PACMISTESTCEN Rawinsonde Soundings at the NAS Miramar.

7/31/79		8/1/79		8/2/79		8/3/79		8/4/79		8/5/79		8/6/79		8/7/79		8/8/79	
No. / PST		No. / PST		No. / PST		No. / PST		No. / PST		No. / PST		No. / PST		No. / PST		No. / PST	
1	1645	3	0318	9	0415	13	0315	17	0320	21	0327	25	0315	29	0315	33	0325
2	2114	4	0915	10	0925	14	0918	18	0915	22	0915	26	0915	30	0915		
		5	1215	11	1512	15	1516	19	1401	23	1513	27	1514	31	1525		
		6	1248	12	2113	16	2250	20	2110	24	2113	28	2120	32	2115		
		7	1515														
		8	2112														

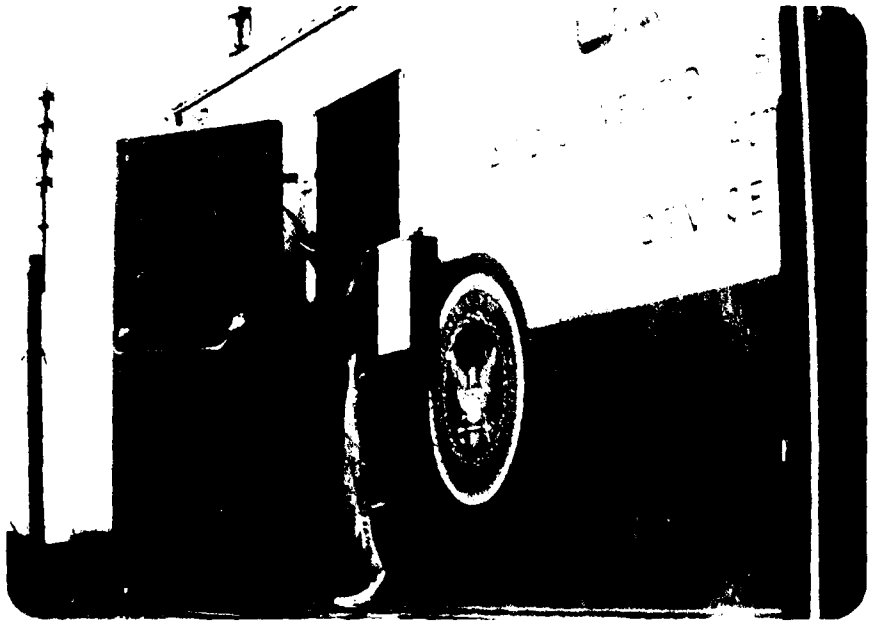


Figure 8. PACMISTESTCEN Meteorological Technician Coordinates With Operations Tower From Meteorological Trailer Prior to Rawinsonde Release.

Figure 9. PACMISTESTCEN Meteorological Technicians Reduce and Record Rawinsonde Data Onsite.

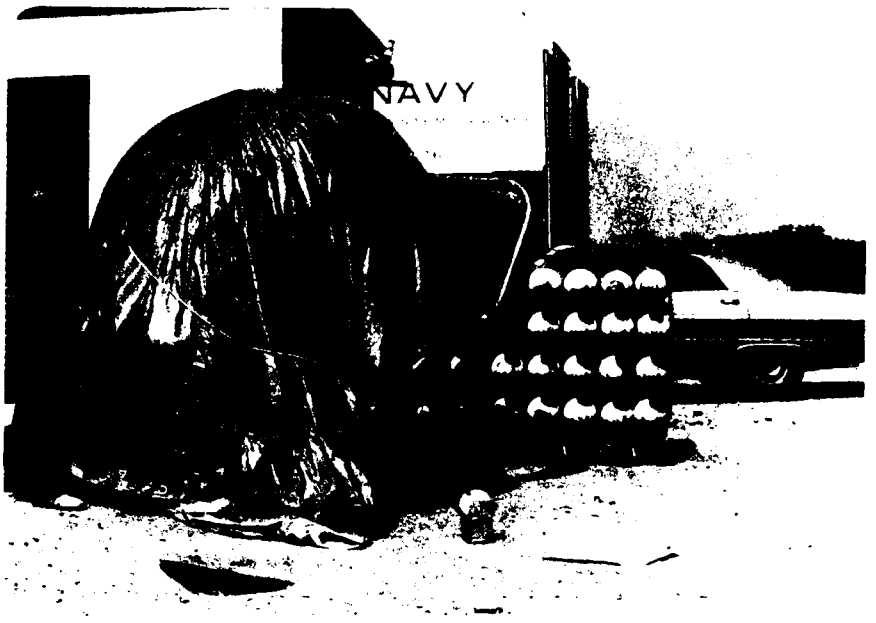


Figure 10. Shroud Covers Balloon Prior to Release.

Figure 11. PACMISTESTCEN GMD Receiver and Nearby Surface Observations.

RESULTS

Table 2 provides a summary of the parameters that PACMISTESTCEN determined to be most needed by NPS and EPA personnel. At the top of the table is a key to the abbreviations used in the table. The data is set up so that it can be quickly and easily input into AQAM calculations.

Figure 12 is a time cross section of isentropic surfaces reduced from 33 RAOBs. Mixing layer depths have been plotted using the data from table 2. Figure 13 shows the rawinsonde observation temperature profiles and inversion base fluctuations as determined from these profiles. For comparison, figure 13 also plots (in dashed lines) the San Diego County Air Pollution Control District (APCD) acoustic sounder data, which exhibited strong returns.

Table 2 and figures 12 and 13 clearly show the diurnal fluctuation of the mixing layer depth. The highest inversion base occurred during midday hours and the lowest inversion base occurred during early morning hours. The stability of the marine layer had the same diurnal vertical oscillation throughout the test period, with extremely unstable conditions becoming most unstable a few hours after noon. The deep marine layer observed on the RAOB profiles on the afternoon of Monday, 6 August, was not accompanied by a significant acoustic sounder return for the same period. The shallowest and the most stable marine layer conditions of the test period occurred immediately after the period of greatest instability and persisted for 12 hours on Tuesday, 7 August.

Figure 14 and table 3 show comparisons of the soundings made at NAS Miramar (NKX) and Montgomery Field, and the San Diego APCD (selected acoustic sounder returns). Relative agreement exists for mixing layer heights on days when data were available for all 3 sources. The best agreement was between Miramar and Montgomery Field soundings. The APCD acoustic sounder returns plotted in figure 14 were derived by smoothing and analyzing the more detailed returns provided by the APCD chief meteorologist (figures 15 and 16).

Table 2. Pasquill Stability Class and Mixing Layer Depth, NAS Miramar, 1 to 7 August 1979

TM = TIME (PST)
WND = WIND (TENS OF DEGREES TRUE & KNOTS)
TC = TOTAL CLOUD COVERAGE (TENTHS)
SI = STABILITY INDEX (PASQUILL)
MLD = MIXING LAYER DEPTH (METERS)

79/08/01 (Wed)

TM	WND	TC	SI	MLD
01	0000	10	4	386
02	0000	10	4	386
03	0000	10	4	386
04	0000	10	4	286
05	0000	10	4	286
06	0000	10	6	286
07	0000	10	4	451
08	0000	10	4	462
09	2403	4	2	483
10	2802	0	1	567
11	3004	0	1	547
12	2504	0	1	674
13	2705	0	1	493
14	3005	0	2	485
15	2707	0	2	490
16	3105	0	3	478
17	3206	0	3	455
18	2803	0	7	463
19	2904	0	6	471
20	2902	0	7	342
21	0000	3	7	256
22	0000	9	6	170
23	0000	10	4	448
24	0000	10	4	448

79/08/02 (Thur)

TM	WND	TC	SI	MLD
01	0000	10	4	531
02	0000	10	4	634
03	3103	10	4	628
04	3302	10	4	628
05	3402	10	4	628
06	0000	9	3	631
07	0000	7	3	654
08	2401	3	3	679
09	2506	1	3	710
10	1902	1	2	740
11	2706	0	3	748
12	3105	0	3	731
13	2907	0	3	660
14	3105	0	3	660
15	2706	0	3	656
16	2703	0	2	651
17	2503	0	3	638
17	2803	0	3	629
19	2803	0	3	501
20	2803	0	7	414
21	3003	4	7	414
22	3402	10	4	414
23	0000	10	4	457
24	0000	10	4	457

79/08/03 (Fri)

TM	WND	TC	SI	MLD
01	0000	10	4	681
02	0000	10	4	681
03	0000	10	4	681
04	0000	10	4	681
05	0000	10	4	681
06	1102	9	6	681
07	0000	6	3	663
08	1901	1	1	637
09	3501	0	1	712
10	2001	0	1	732
11	2605	0	1	719
12	2004	0	1	725
13	2006	0	2	702
14	2207	0	2	695
15	2601	0	1	702
16	2806	0	3	687
17	2704	0	3	652
18	2604	0	6	577
19	3004	0	6	509
20	3303	0	7	423
21	3404	0	6	423
22	3404	0	6	423
23	3503	0	7	423
24	3503	10	4	408

79/08/04 (Sat)

TM	WND	TC	SI	MLD
01	0000	10	4	423
02	3504	10	4	313
03	3401	10	4	313
04	0000	10	4	313
05	0000	10	4	313
06	0000	10	4	329
07	0000	10	4	415
08	0000	10	4	504
09	3601	6	3	586
10	3501	0	1	611
11	2803	0	1	627
12	3106	0	2	631
13	2908	0	2	461
14	3008	0	3	506
15	2906	0	2	461
16	2906	0	3	445
17	2905	0	3	416
18	3105	0	6	399
19	3204	0	6	364
20	3103	0	7	305
21	2902	3	7	305
22	0000	8	6	305
23	0000	10	6	305
24	0000	10	4	335

79/08/05 (Sun)

TM	WND	TC	SI	MLD
01	0000	10	4	422
02	1202	10	4	422
03	0000	10	4	302
04	1802	10	4	422
05	0000	10	4	422
06	0000	9	6	438
07	1701	9	3	486
08	0000	9	3	529
09	2502	8	2	570
10	0000	9	2	641
11	2003	10	2	687
12	2002	10	2	717
13	2704	10	3	510
14	2903	9	2	510
15	2102	10	3	466
16	2702	10	3	421
17	2502	10	3	396
18	2401	10	6	371
19	2403	10	6	348
20	0000	10	6	326
21	0401	10	6	298
22	0000	10	6	272
23	0000	9	6	251
24	3101	9	6	227

79/08/06 (Mon)

TM	WND	TC	SI	MLD
01	0000	7	6	197
02	0000	7	6	173
03	0000	6	6	178
04	0000	4	7	182
05	0000	6	6	186
06	3503	4	7	197
07	3204	3	3	222
08	3403	2	2	248
09	3104	2	2	275
10	3005	4	2	648
11	3105	4	1	1059
12	2906	3	2	1059
13	2804	2	1	1236
14	2708	1	3	1423
15	2705	3	2	1423
16	2606	4	3	1306
17	2706	5	3	1182
18	2803	5	6	876
19	3004	5	5	318
20	0000	8	6	290
21	0000	5	6	219
22	0000	3	7	219
23	0000	3	7	210
24	0000	1	7	212

79/08/07 (Tues)

TM	WND	TC	SI	MLD
01	3402	0	7	217
02	0000	0	7	159
03	0000	0	7	159
04	0000	0	7	159
05	0000	0	7	162
06	0000	0	7	198
07	0000	0	2	212
08	0000	1	1	418
09	0000	1	1	651
10	2903	3	2	774
11	2906	7	2	651
12	3007	7	2	533
13	2908	7	3	813
14	2908	5	3	813
15	3206	5	2	605
16	2806	3	3	745
17	2806	2	3	605
18	3105	2	6	484
19	3001	2	7	396
20	3002	2	7	294
21	3102	1	7	216
22	0000	0	7	182
23	3001	0	7	226
24	3403	0	7	241

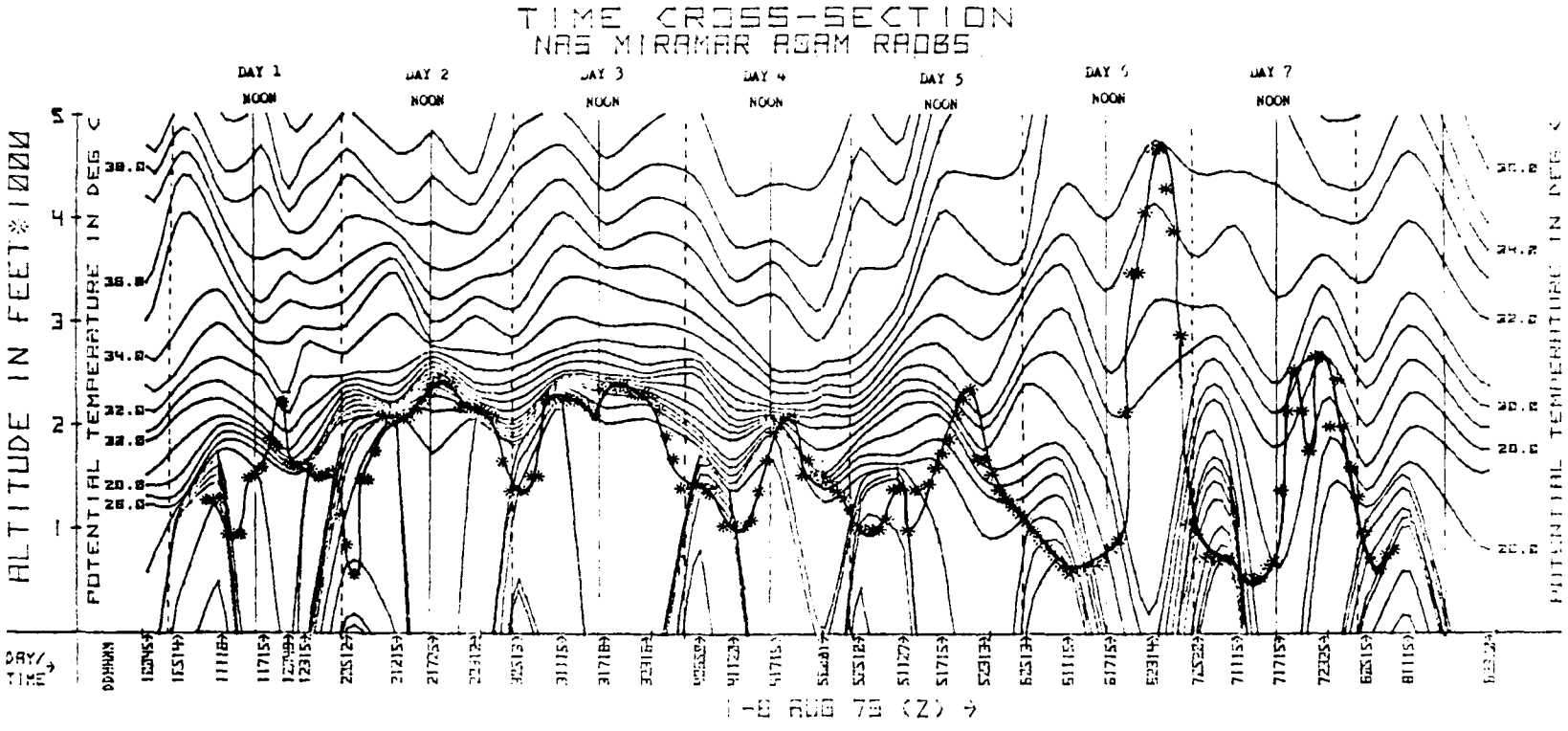
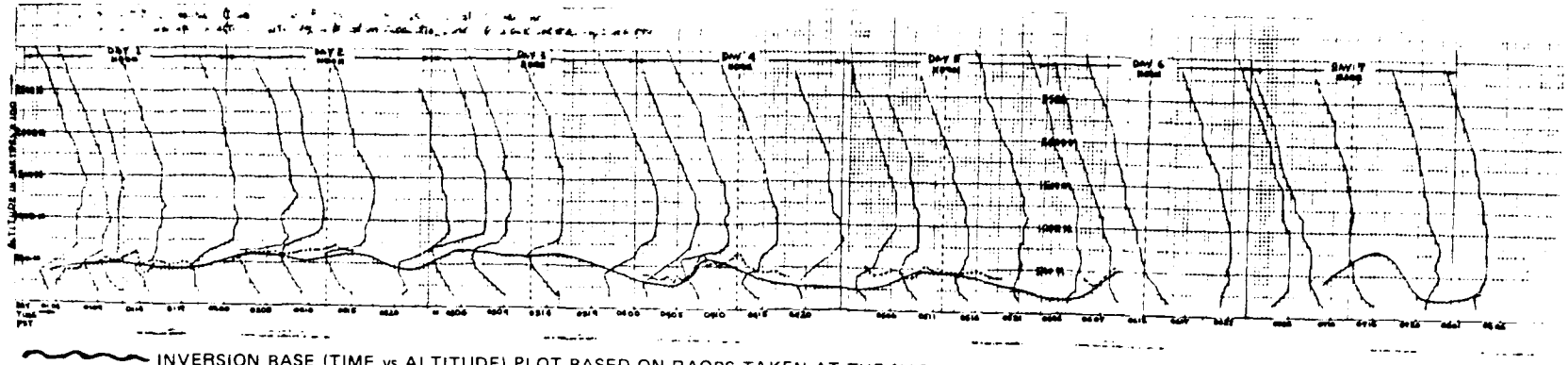


Figure 12. Time Cross Section of the Potential Temperature Field and Plot of the Mixing Layer Depth Shown in Table 2.



INVERSION BASE (TIME vs ALTITUDE) PLOT BASED ON RAOBS TAKEN AT THE NAS MIRAMAR

INVERSION BASE (TIME vs ALTITUDE) PLOT BASED ON ACOUSTIC SOUNDER DATA OBTAINED AT APCD, SAN DIEGO

Figure 13. Rawinsonde Temperature Profiles and Time Section of Analyzed Inversion Heights for NAS Miramar.

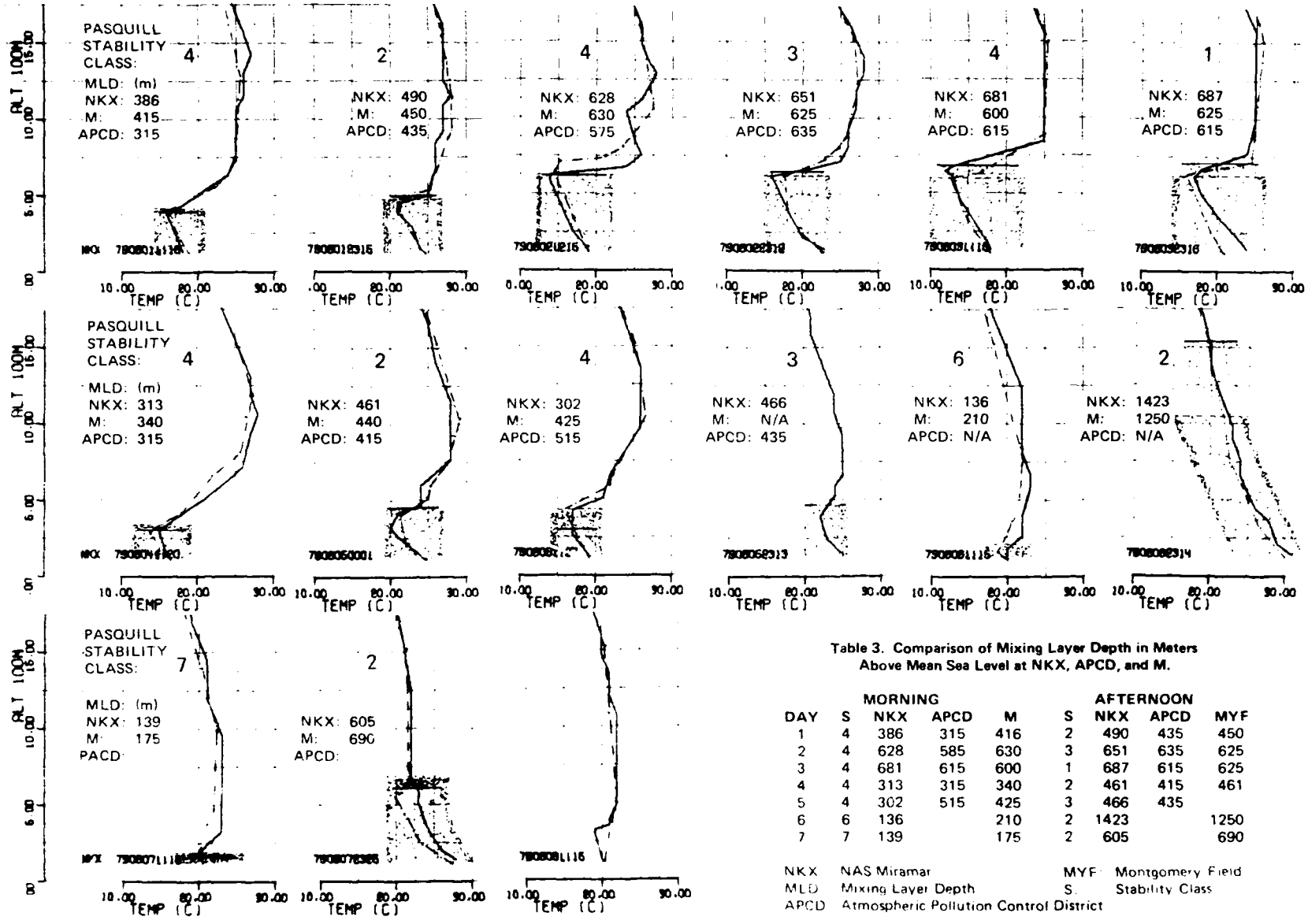


Table 3. Comparison of Mixing Layer Depth in Meters Above Mean Sea Level at NKX, APCD, and M.

	MORNING				AFTERNOON			
DAY	S	NKX	APCD	M	S	NKX	APCD	MYF
1	4	386	315	416	2	490	435	450
2	4	628	585	630	3	651	635	625
3	4	681	615	600	1	687	615	625
4	4	313	315	340	2	461	415	461
5	4	302	515	425	3	466	435	
6	6	136		210	2	1423		1250
7	7	139		175	2	605		690

NKX NAS Miramar
MLD Mixing Layer Depth
APCD Atmospheric Pollution Control District
MYF Montgomery Field
S Stability Class

Figure 14. Comparison of Morning and Afternoon Rawinsonde Observations From the NAS Miramar and Mongomery Field, Pasquill Stability Classes, and Mixing Layer Comparison for NKX, MYF, and APCD, San Diego.

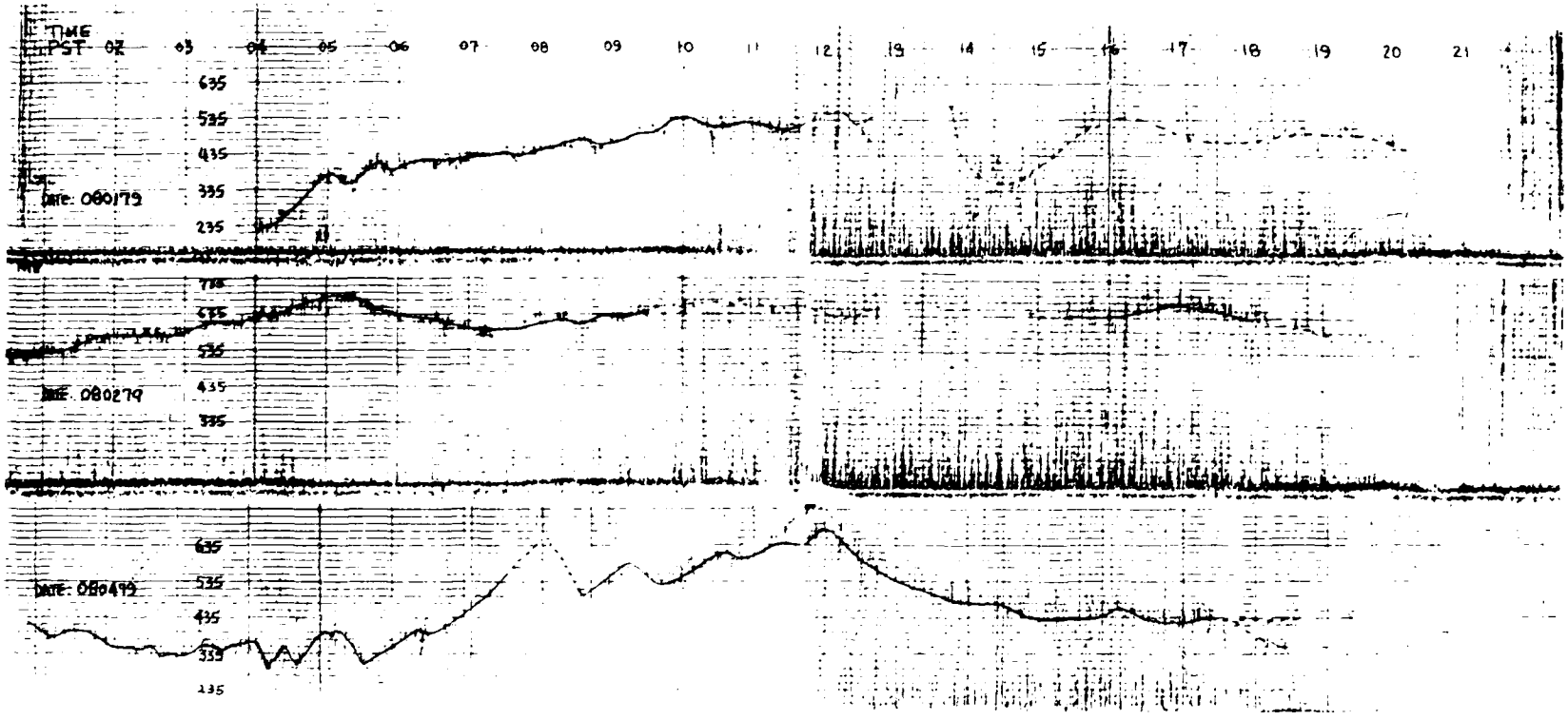


Figure 15. Acoustic Sounding Data Taken at the Air Pollution Control District, San Diego, 1, 2, and 4 August 1979.

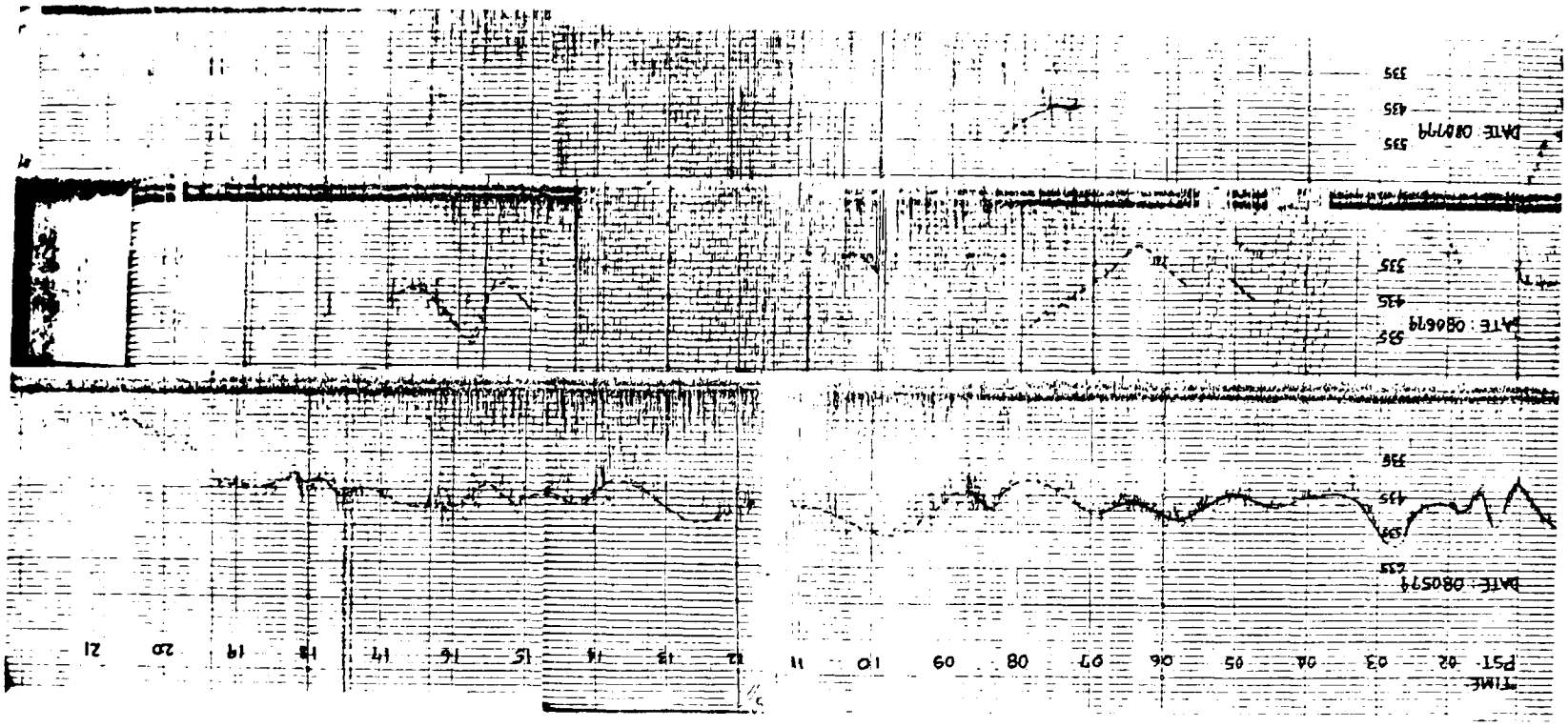


Figure 16. Acoustic Sounding Data Taken at the Air Pollution Control District, San Diego, 5, 6, and 7 August 1979.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

This report has summarized the PACMISTESTCEN support for the AQAM evaluation test at NAS Miramar. Support consisted of planning of the measurement test period based on criteria derived from numerical analysis of climatological data, provision of operational day-to-day forecasts to plan monitoring efforts, both surface and upper air measurements employing the high-resolution PACMISTESTCEN-modified rawinsondes and transported equipment, onsite and post operation data evaluation, reduction and analysis of data, and meteorological interpretation services.

The time period recommended for the AQAM tests proved to be highly representative and repeatable in terms of weather conditions with adequate wind flows, prevailing wind directions, mixing layer depth, and stability variations. The PACMISTESTCEN rawinsonde unit released a total of 33 RAOBS from NAS Miramar. Data from these soundings compared very closely with 15 San Diego/Montgomery Field soundings as well as with nearby acoustic sounder returns obtained by the San Diego County APCD. The similarity of mixing layer depths for the 3 sites coupled with the prevalent flight safety control problems presented at Miramar is a good basis for considering alternative upper air sounding locations if additional measurements are required.

CONCLUSIONS

The actual experience obtained from day-to-day weather forecasts indicated that the predictions were an accurate and useful osurce of guidance with which to plan and conduct monitoring activities. Should the model validation be performed again at Miramar or at other selected locations, a diverse group of meteorological services such as the ones described in this report should again be provided as a means of realistically planning, evaluating, analyzing, measuring, and interpreting test conditions with due consideration for the meteorological environment.

For future AQAM tests, air mass trajectory analysis techniques, such as those currently under development by PACMISTESTCEN, should be used to determine the effects of the horizontal transport of air.

REFERENCES

1. Naval Postgraduate School. *Sensitivity of AQAM Prediction for Naval Air Operations to Meteorological and Dispersion Model Parameters*, by D. W. Netzer. Monterey, California, May 1978. (Technical Report NPS-67Nt78051) UNCLASSIFIED.

2. California State University, Northridge. *Multiple Regression Analysis of Winds, Mixing Depths, and Pasquill Stability Indices at NAS Miramar*, by Gong-Yuh Lin. Northridge, California, 31 August 1979. (Unpublished Report) UNCLASSIFIED.

APPENDIX A

FOUR-WAY JOINT RELATIVE FREQUENCY OF OCCURRENCE OF MIXING DEPTH, STABILITY AND WIND BASED ON MONTGOMERY FIELD RAOBS AND MIRAMAR SURFACE OBSERVATIONS

APPENDIX A

FOUR-WAY JOINT RELATIVE FREQUENCY OF OCCURRENCE OF MIXING DEPTH, STABILITY, AND WIND DIRECTION AND SPEED BASED ON MONTGOMERY FIELD RAWINSONDE OBSERVATION AND NAS MIRAMAR SURFACE OBSERVATIONS

INTRODUCTION

The examples below and the tabulation on the following page give the relative frequency (in tenths of percent) of occurrence for mixing depths, wind directions, Pasquill stabilities, and wind speeds. Each box gives frequencies by stability and speed for a given mixing depth-direction category. The bottom row of boxes gives totals for all mixing depths, and the far right-hand column of boxes gives totals for all directions (limited to 100-010 degrees). The bottom right-hand box gives totals for all depths and speeds.

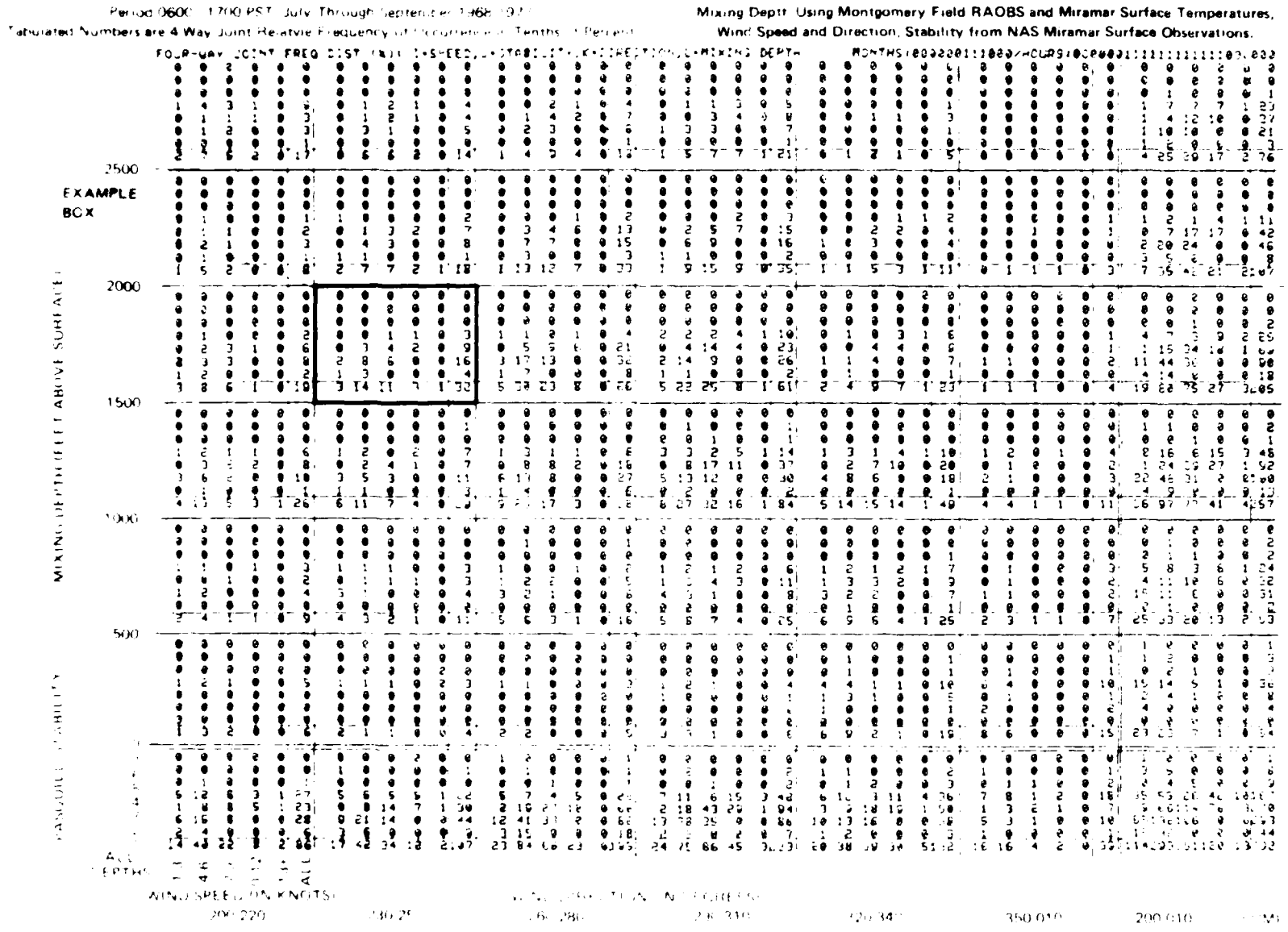
Example: Given stability index = 2
speed = 5 knots (in 4 - 6 class)
mixing depth = 1,750 feet (1,500-2,000 ft class)
direction = 235 degree (230-250 degree class)
Then frequency of occurrence = 0.8% (8 tenths %)

Pasquill Stability Index	1-3	4-6	7-9	10-12	13+	All Speeds (Total)
7	0	0	0	0	0	0
6	0	0	0	0	0	0
5	0	0	0	0	0	0
4	0	0	1	1	0	3
3	0	3	4	2	0	9
2	2	8	6	0	0	16
1	1	3	0	0	0	4
Totals (all Stabilities) →	3	14	11	3	1	32 ← Grand Total

Speed in Knots

Example "box" for mixing depths (1,500 - 2,000 feet) wind direction (230 - 250 degrees)

Key to Four Way Frequency Table


Mixing Depth Using Montgomery Field RAOBS and Miramar Surface Temperatures, Wind Speed and Direction, Stability from NAS Miramar Surface Observations.
EXAMPLE BOX
MIXING DEPTH IN FEET ABOVE SURFACE
2500
2000
1500
1000
500
200-220
220-250
250-280
280-310
310-340
350-010
010-040

APPENDIX B

SURFACE WEATHER OBSERVATIONS BY NAVAL WEATHER SERVICE ENVIRONMENTAL DETACHMENT (NWSED), NAS MIRAMAR FROM 1 TO 8 AUGUST 1979

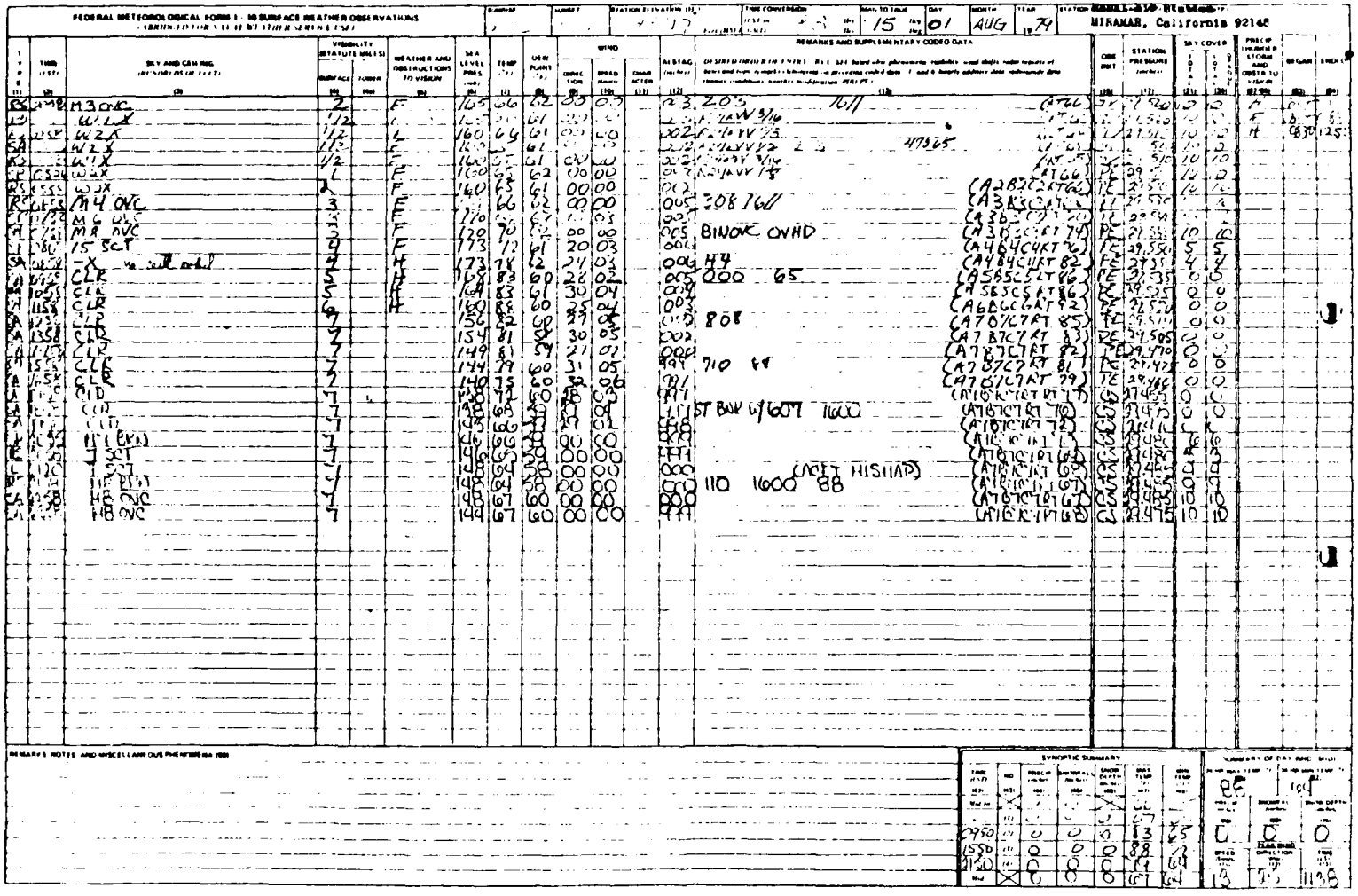
Surface Weather Observations made at the NWSD, NAS, Miramar from 1 to 8 August 1979.

Wednesday NWSED

FEDERAL METEOROLOGICAL FORM 1 - NS SURFACE WEATHER OBSERVATIONS

DAY 01 MONTH AUG YEAR 19 79

MIRAMAR, California 92145



B-3

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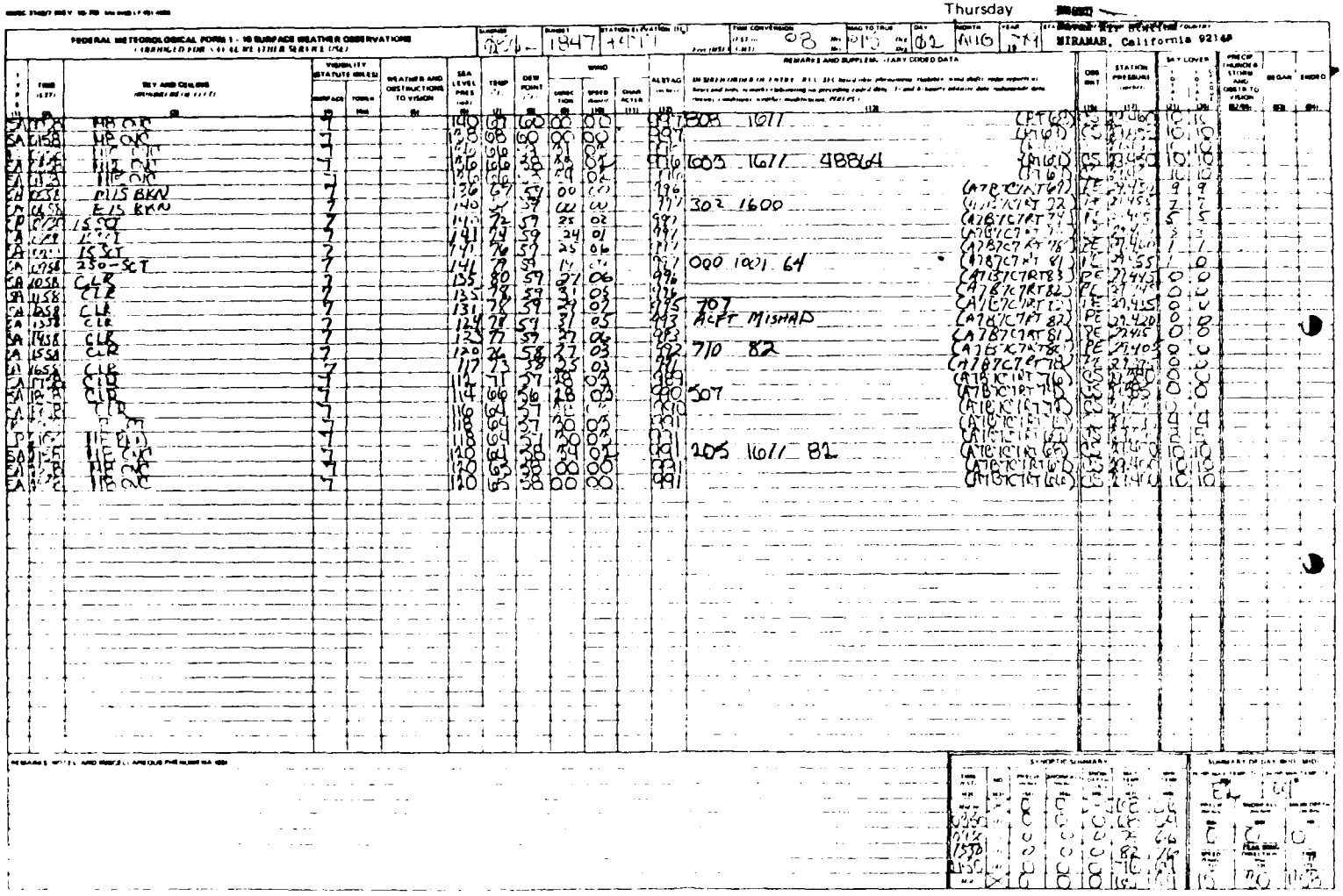
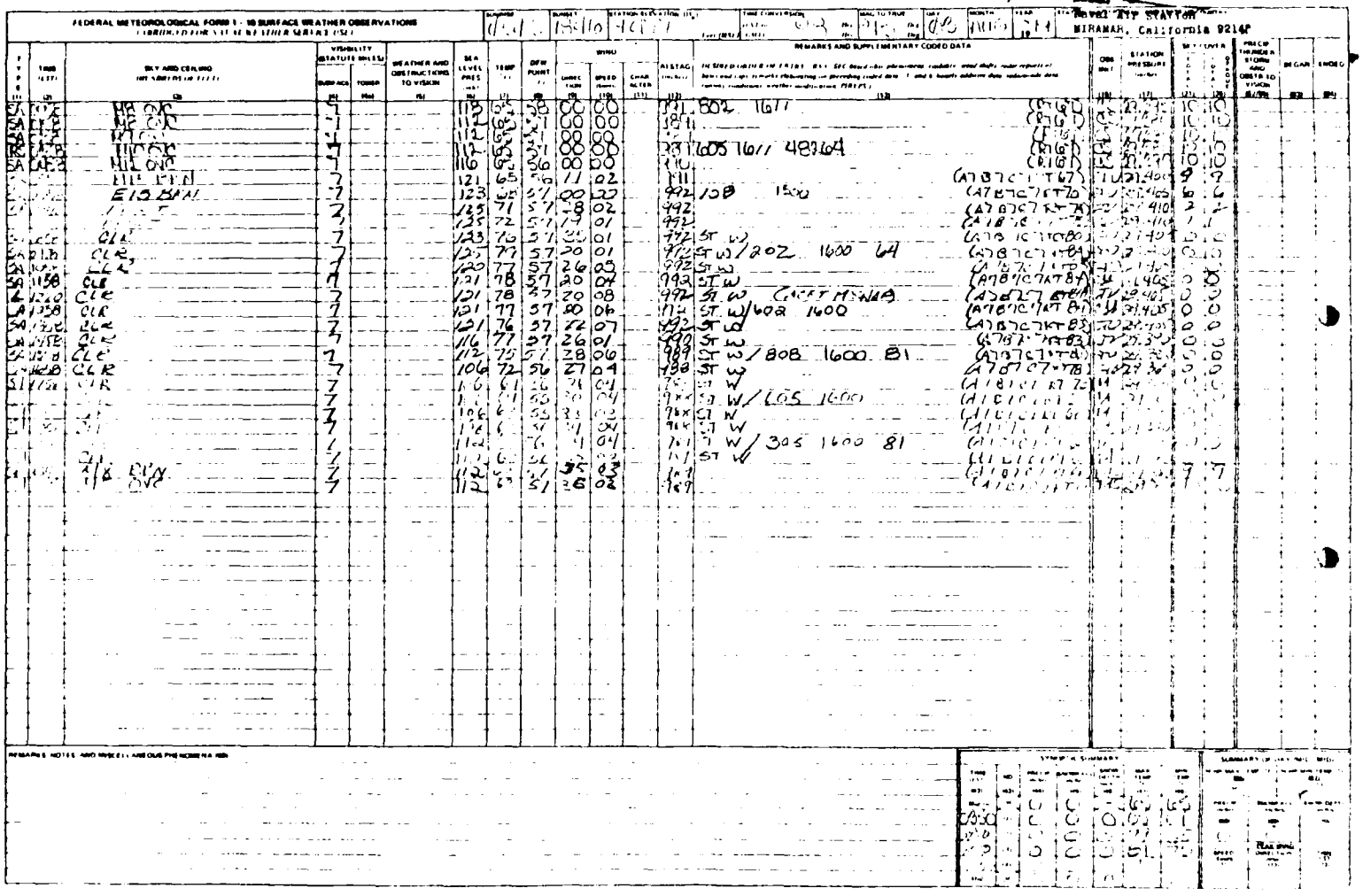

Thursday
FEDERAL METEOROLOGICAL FORM 1 - 10 SURFACE WEATHER OBSERVATIONS
1847
MIRAMAR, California 92145
SKY AND CEILING
VISIBILITY STATUTE MILES
WEATHER AND OBSTRUCTIONS TO VISION
SEA LEVEL PRES
TEMP
DEW POINT
WIND
REMARKS AND SUPPLEMENTARY CODED DATA
STATION PRESSURE
SKY COVER
PRECIP HOURLY AMOUNT
MAX
MIN
SUMMARY OF DAY OBSERVATIONS

Friday


FEDERAL METEOROLOGICAL FORM 1 - 10 SURFACE WEATHER OBSERVATIONS
MIRAMAR, California 92145

Saturday

FEDERAL METEOROLOGICAL FORM 1-10 SURFACE WEATHER OBSERVATIONS

Station: Naval Air Station MIRAMAR, California 92145 — Day: 24 — Year: 19

Hour	Type (1)	Time (LST) (2)	Sky and Ceiling (3)	Visibility Surface (4)	Weather and Obstructions to Vision (5)	Sea Level Pres (6)	Temp (7)	Dew Point (8)	Wind Direction (9)	Wind Speed (10)	Altstg (12)	Remarks and Supplementary Coded Data (13)	Obs Init (16)	Station Pressure (17)	Sky Cover Total (21)	Sky Cover Opaque (22)
01	S[illegible]	[illegible]	7 [illegible]	7		[illegible]	4[illegible]	[illegible]	[illegible]	[illegible]	7[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
02	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	6[illegible]	[illegible]	3[illegible]	0[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
03	S[illegible]	[illegible]	[illegible]	6	H	110	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
04	[illegible]	[illegible]	[illegible]	5	H	113	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] 4 3162	[illegible]	[illegible]	10	[illegible]
05	[illegible]	[illegible]	[illegible]	[illegible]	H	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13
06	[illegible]	[illegible]	M2 OVC	2	H	120	63	58	00	00	991	(A2 B2 C2 RT [illegible])	CP	29.400	10	10
	[illegible]	[illegible]	15 [illegible]	[illegible]	[illegible]	123	64	59	[illegible]	[illegible]	992	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
07	SA	[illegible]	M4 OVC	3	H	1[illegible]3	64	58	05	02	993	[illegible] 1[illegible] [illegible]	[illegible]	[illegible]	10	[illegible]
	[illegible]	0719	[illegible]	3	H	128	64	58	05	01	993	[illegible]	[illegible]	29.410	10	10
08	SA	0758	M16 OVC	3	H	131	66	60	00	00	994	(A3 B3 C3 RT 72)	KC	29.430	10	10
	SP	[illegible]	M [illegible] BKN	4	H	133	70	59	00	00	995	(A4 B4 C4 RT 74)	KC	29.44[illegible]	9	9
09	SA	0[illegible]	M13 BKN	5	H	133	71	61	31	01	996	(A5 B5 C5 RT 75)	KC	29.4[illegible]	6	6
	[illegible]	[illegible]	[illegible] SCT	[illegible]	H	123	73	60	33	01	995	(A5 B5 C5 RT 77)	KC	29.440	2	2
10	SA	0[illegible]	CLR	6	H	131	77	60	35	01	994	003 62 (A6 B6 C6 RT [illegible])	KC	29.4[illegible]	0	0
11	[illegible]	[illegible]	CLR	7		126	81	61	28	03	993	(A7 B7 C6 RT 80)	[illegible]	29.420	0	0
12	SA	[illegible]	CLR	7		120	82	60	31	06	992	(A7 B7 C6 RT 8[illegible])	[illegible]	29.4[illegible]	0	0
13	[illegible]	[illegible]	CLR	6	N	120	79	60	27	08	992	608 (A7 B6 C6 RT 81)	[illegible]	29.4[illegible]	0	0
14	SA	1[illegible]55	CLR	6	H	116	81	60	30	08	991	(A6 B6 C6 RT 81)	[illegible]	29.3[illegible]	0	0
15	[illegible]	[illegible]5	CLR	6	N	111	79	60	27	06	987	(A6 B6 C6 RT 85)	[illegible]	29.300	0	0
16	SA	1558	CLR	5	H	108	77	61	29	06	988	712 82 (A5 B5 C5 RT 84)	KC	[illegible]	0	0
17	SA	[illegible]	CLR	6	H	105	74	60	29	05	987	(A6 B6 C6 RT 80)	KC	29.360	0	0
18	SA	1[illegible]	CLR	5	H	105	71	59	31	05	[illegible]87	(A5 [illegible] RT 76)	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	5	H	1[illegible]5	[illegible]	59	30	04	[illegible]	603 (A5 B5 C5 [illegible])	[illegible]	[illegible]40	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	H	107	66	[illegible]	31	03	[illegible]	(A5 B5 [illegible] RT 71)	[illegible]	[illegible]	[illegible]	[illegible]
21	SA	[illegible]	150 SCT	5	H	115	66	60	21	03	990	(A5 B5 C5 RT 71)	[illegible]	29.[illegible]	3	3
22	[illegible]	[illegible]	[illegible]	5	H	122	66	60	[illegible]	00	[illegible]	217 1030 82 (A[illegible] RT 71)	[illegible]	29.41[illegible]	[illegible]	8
23	[illegible]	[illegible]	M[illegible] 100 OVC	4	H	12[illegible]	66	60	[illegible]	00	[illegible]	(A4 [illegible])	[illegible]	29.41[illegible]	10	8
24	A	[illegible]	[illegible] 100 OVC	3	H	122	67	61	[illegible]	00	[illegible]	(A[illegible] RT [illegible])	[illegible]	29.41[illegible]	10	8

REMARKS, NOTES, AND MISCELLANEOUS PHENOMENA

SYNOPTIC SUMMARY

Time		Precip	Snowfall	Snow Depth	Max Temp	Min Temp
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[illegible]	[illegible]	0	0	0	71	62
[illegible]	[illegible]	0	[illegible]	[illegible]	82	77
[illegible]	[illegible]	0	[illegible]	[illegible]	77	66

SUMMARY OF DAY

B-6

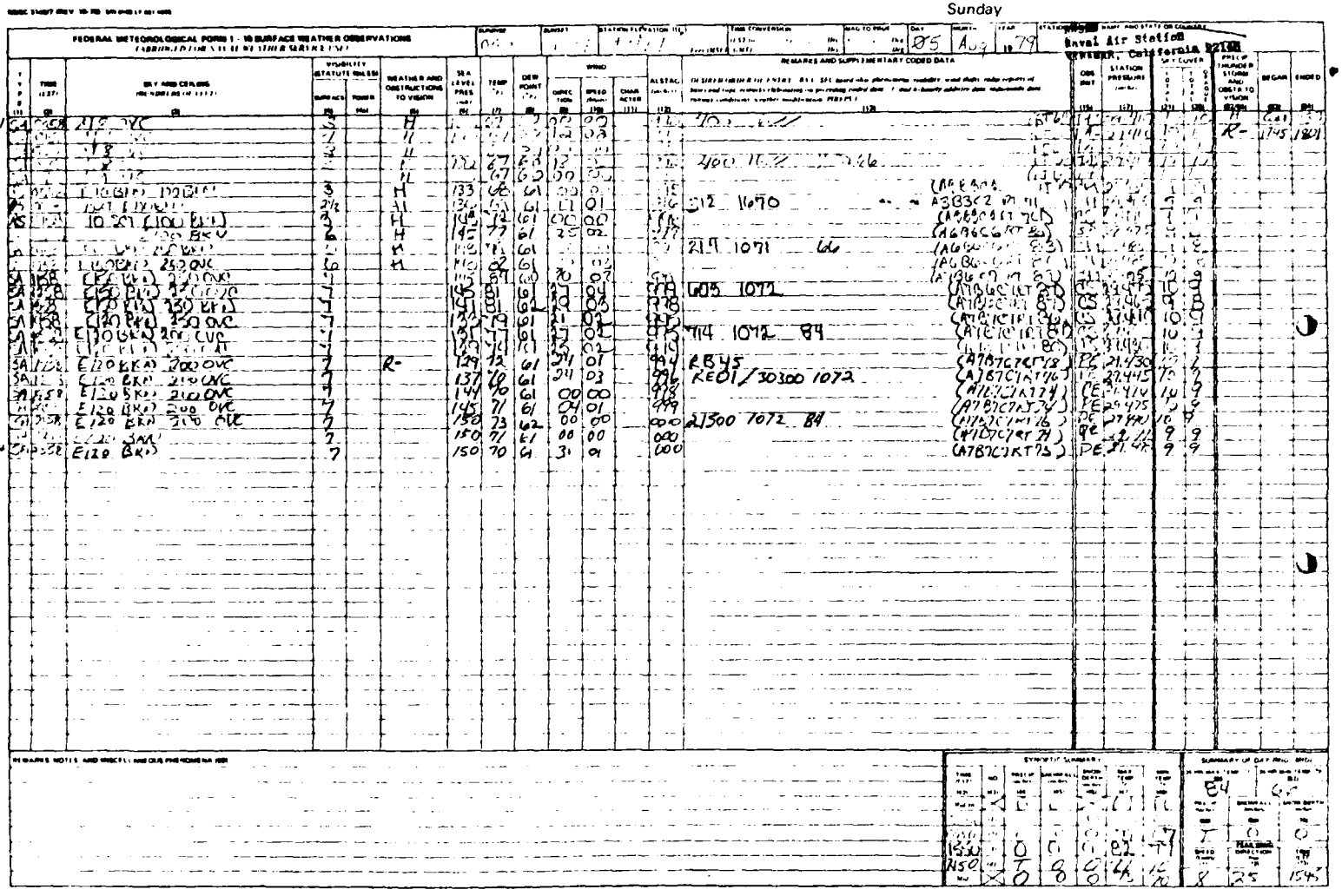
Sunday

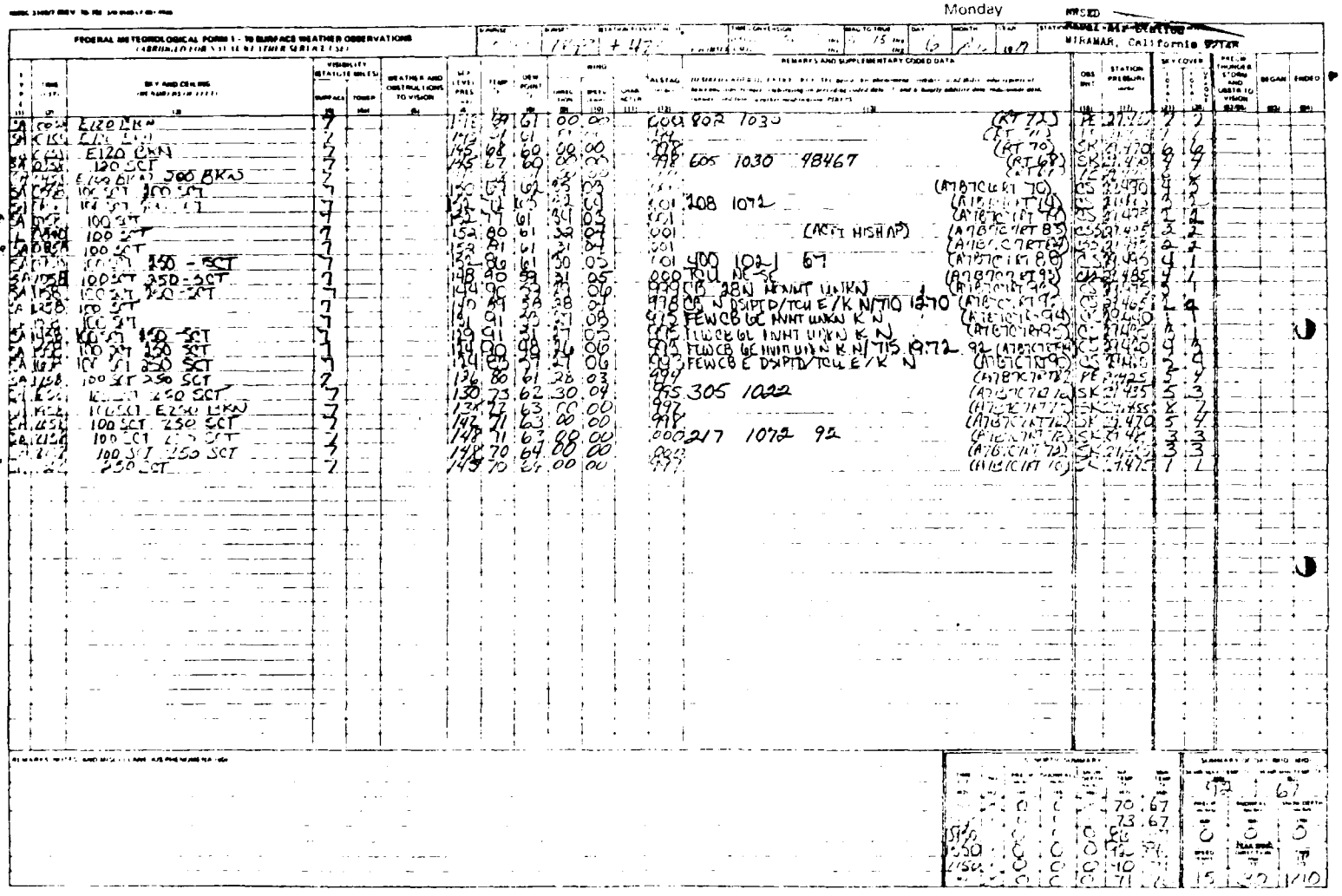
FEDERAL METEOROLOGICAL FORM 1 - 10 SURFACE WEATHER OBSERVATIONS

Day 05 Month Aug Year 19 79

Naval Air Station

Miramar, California 92145



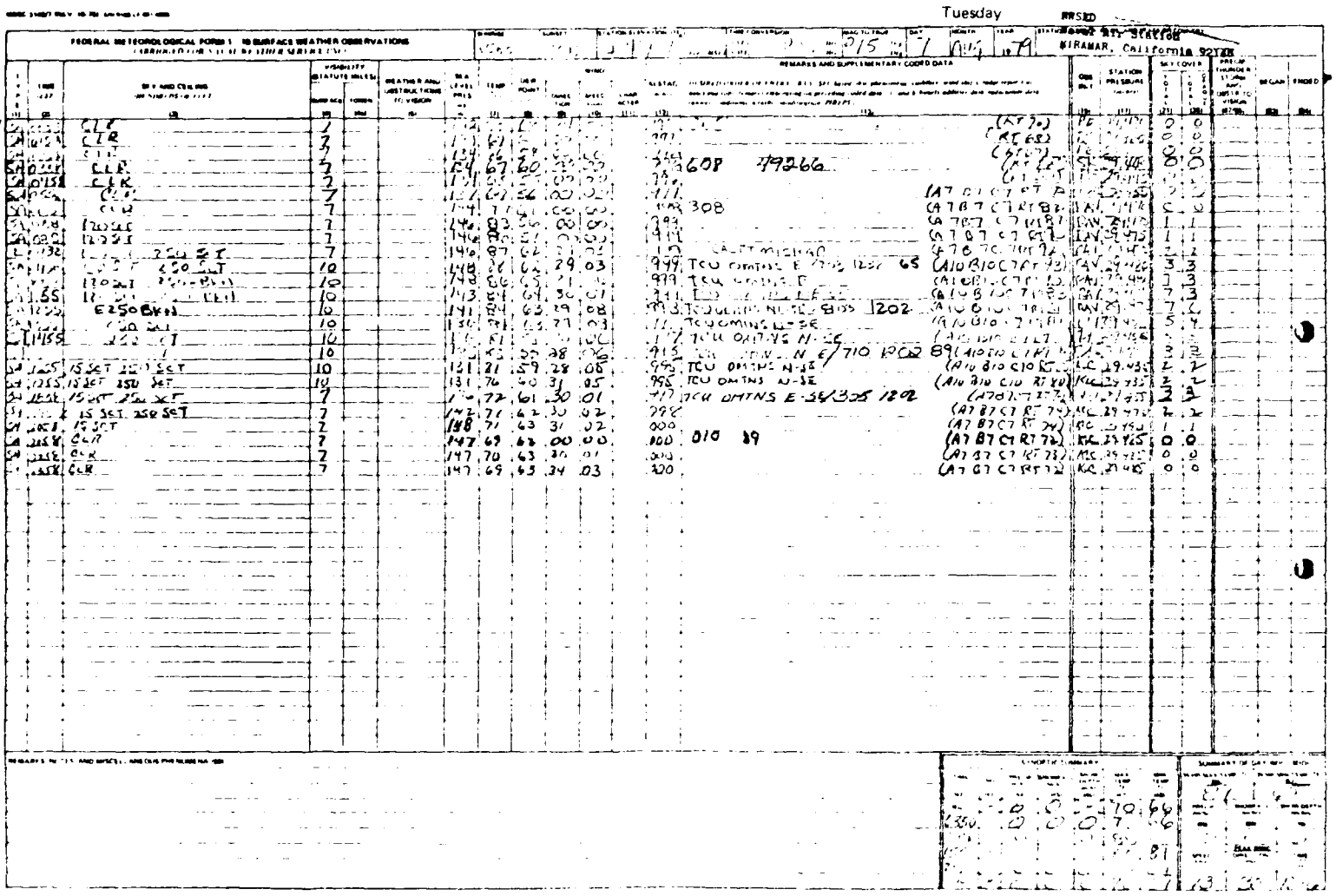


Monday

FEDERAL METEOROLOGICAL FORM 1 - 10 SURFACE WEATHER OBSERVATIONS

MIRAMAR, California

B-8



Tuesday

FEDERAL METEOROLOGICAL FORM 1 — SURFACE WEATHER OBSERVATIONS

DAY 7 MONTH YEAR 19 79

Naval Air Station
MIRAMAR, California 92145

REMARKS AND SUPPLEMENTARY CODED DATA

Wednesday

FEDERAL METEOROLOGICAL FORM 1-10 SURFACE WEATHER OBSERVATIONS

Station: MIRAMAR, California — Day: 8 — Month: [illegible] — Year: 19 77

Type	Time (LST)	Sky and ceiling	Visibility surface	Visibility tower	Weather and obstructions to vision	Sea level pres.	Temp	Dew point	Wind direction	Wind speed	Wind character	Altimeter	Remarks and supplementary coded data	Obs init.	Station pressure	Sky cover total	Sky cover opaque	Precip	Began	Ended
SA	[illegible]58	CLR	7			[illegible]	69	63	00	00		998	805 (RT 70)	[illegible]	[illegible]	0	0	/	235	[illegible]
[illegible]	[illegible]	[illegible]	7			[illegible]	69	61	32	02		[illegible]	(RT 71)	[illegible]	[illegible]	3	3	/	035	[illegible]
[illegible]	[illegible]	[illegible]	1			[illegible]	68	62	[illegible]	[illegible]		997	[illegible]	[illegible]	[illegible]	[illegible]		11	655	0750
[illegible]	[illegible]	X [illegible]	3		FH	[illegible]	[illegible]	62	[illegible]	01		997	FH3 603 1630 [illegible]768 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	[illegible]				141	67	62	[illegible]	00		113	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]05	[illegible]	7		FH	[illegible]	[illegible]	[illegible]	34	[illegible]		[illegible]	(A[illegible])	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	210 [illegible] (A[illegible] RT 75)	[illegible]	[illegible]	1	1			
[illegible]	[illegible]	[illegible]	7			[illegible]	[illegible]	61	[illegible]	02		[illegible]	(A7 B7 C7 [illegible])	[illegible]	[illegible]	1	1			
SP	[illegible]	[illegible]	7			150	84	63	[illegible]	[illegible]		[illegible]	(A7 B[illegible])	[illegible]	[illegible]	1	1			
SA	[illegible]	[illegible]	7			[illegible]	83	64	[illegible]	04		001	003 1030 66 ([illegible])	[illegible]	[illegible]	1	1			
[illegible]	[illegible]	[illegible]	7			152	84	63	30	04		001	([illegible])	[illegible]	[illegible]	1	1			
[illegible]	[illegible]	[illegible]	7			[illegible]	[illegible]	62	[illegible]	06		[illegible]	FEW TC W	[illegible]	[illegible]	[illegible]	[illegible]			
SA	[illegible]	CLR	7			146	84	63	29	10		999	FEW AC W 1707 1030 (A7 B7 C7 RT 80)	CM	29.480	0	0			
[illegible]	[illegible]	CLR	7			142	84	62	33	08		998	FEW AC W TCU E ([illegible])	[illegible]	[illegible]	0	0			
[illegible]	[illegible]	CLR	7			140	83	61	33	07		991	TCU E ([illegible])	[illegible]	[illegible]	0	0			
[illegible]	[illegible]	CLR	7			133	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	TCU E / [illegible] 1200 86 ([illegible])	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	7			[illegible]	78	58	33	07		[illegible]	TCU E ([illegible])	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	CLR	10			134	76	59	30	05		996	(A10 B10 C7 RT 80)	[illegible]	[illegible]	0	0			
[illegible]	[illegible]	CLR	7			137	72	61	30	01		997	ST W/2305 1600 (A7 B7 C7 CT 72)	KC	[illegible]	0	0			
[illegible]	[illegible]	CLR	7			141	71	62	29	02		998	ST W (A7 B7 C7 [illegible] 76)	KL	[illegible]	0	0			
[illegible]	[illegible]	[illegible]	7			148	70	62	33	01		000	ST W (A7 B7 C7 [illegible] 71)	[illegible]	[illegible]	0	0			
[illegible]	[illegible]	[illegible]	7			149	69	62	00	00		000	ST W/212 1600 86 (A7 B7 C7 RT 73)	KC	[illegible]	0	0			
[illegible]	[illegible]	[illegible]	7			141	68	61	00	00		[illegible]	ST W ([illegible])	[illegible]	[illegible]	0	0			
[illegible]	[illegible]	[illegible]	6		H	146	66	58	00	00		997	ST W (A6 B6 C6 RT [illegible])	KR	[illegible]	0	0			

SYNOPTIC SUMMARY

SUMMARY OF DAY

APPENDIX C

SURFACE WEATHER OBSERVATIONS AT PACMISTESTCEN RADIOSONDE OBSERVATIONS SITE FROM 1 TO 8 AUGUST 1979

Surface Weather Observations from the PACMISTESTCEN RAOB Site at the NAS Miramar from 1 to 8 August 1979.

FEDERAL METEOROLOGICAL FORM 1 - 10 SURFACE WEATHER OBSERVATIONS

SUNRISE | SUNSET | STATION ELEVATION (ft) | TIME CONVERSION | MAG TO TRUE | DAY 01 | MONTH AUG | YEAR 79 | STATION NUMBER, NAME AND TYPE OF

SKY AND CEILING (1)	VISIBILITY (STATUTE MILES) surface (4a)	VISIBILITY (STATUTE MILES) tower (4b)	WEATHER AND OBSTRUCTIONS TO VISION (5)	SEA LEVEL PRES (mb) (6)	TEMP (°F) (7)	DEW POINT (°F) (8)	WIND DIRECTION (9)	WIND SPEED (knots) (10)	WIND CHAR ACFTN (11)	ALSTG (inches) (12)	REMARKS AND SUPPLEMENTARY CODED DATA (13)	P/N %	OUT OF	
[illegible]	7				80	62	27	04				55		0 0
[illegible]	7				80	62	29	06				55		0 0
[illegible]	7				78	63	30	06				51		0 0
[illegible]	7				74	63	33	04			FEW ST W	71		0 0
[illegible]	5		H		65	63	30	02			FEW ST W	91		0 0
[illegible]	5		H		69	62	26	02			1/10 ST	81		1 1
[illegible]	M		M		65	62	M	M			10/10 ST	91		10 10

ENCLOSURE (2) TO COMPACMISTESTCEN MEMO
TRANSMITTAL 3533 3140 Ser [illegible] of AUG 1979

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FEDERAL AVIATION ADMINISTRATION — NATIONAL WEATHER SERVICE (NWS)

FEDERAL AVIATION ADMINISTRATION/NATIONAL WEATHER SERVICE (NWS) FORM 1 - 10 SURFACE WEATHER OBSERVATIONS

SUNRISE | SUNSET | STATION ELEVATION (ft) | TIME CONVERSION (LST to ___ Hrs; Add ___ Hrs for EDT) | MAG TO TRUE | DAY 02 | MONTH AUG | YEAR 77

(LST)	SKY AND CEILING (HUNDREDS OF FEET)	VISIBILITY (STATUTE MILES) SURFACE (4)	VISIBILITY (STATUTE MILES) TOWER (4a)	WEATHER AND OBSTRUCTIONS TO VISION (5)	SEA LEVEL PRES (mb) (6)	TEMP (°F) (7)	DEW POINT (°F) (8)	WIND DIREC TION (9)	WIND SPEED (knots) (10)	WIND CHAR ACTER (11)	ALSTG (inches) (12)	REMARKS AND SUPPLEMENTARY CODED DATA (DESIRABLE ORDER IN TIE ENTRY: RVV SAC based upon permanent, midbuild, wind shifts, radar reports, basis and type, remarks, obstructing to vision preceding record date 3- and 6-hourly additional data, maximum/minimum temperature, runway conditions, weather modifications, PIREPS) (13)	D (Pr)
		M	M			61	52	00	00			10/10 ST	
		M	M			57	51	00	00			10/10 ST	
		M	M			66	50	00	00			9/10 ST	
		M	M			67	61	12	04			7/10 ST	
		M	M			69	61	24	03			5/10 ST	
		M	M			73	62	24	04			3/10 ST	
		M	M			77	61	21	02			ST OFSHR	
		M	M			79	64	24	08			ST OFSHR	
		5	H			79	63	22	26			ST OFSHR	
		5	H			76	64	23	26			ST OFSHR	
		5	H			77	62	27	28			ST OFSHR	
		5	H			76	63	27	07			ST OFSHR	
		5	H			75	61	27	05			ST OFSHR	
		5	H			72	61	27	05			ST OFSHR	
		5	H			64	59	00	00			ST OFSHR	
		5	H			63	59	00	00			ST OFSHR	
		5	H			62	59	00	00			3/10 ST	
		M	H			M	M	M	M				
		M	M			64	60	00	00			10/16 ST	
		M	M			65	60	00	00			10/10 ST	

FEDERAL METEOROLOGICAL FORM 1 - 10 SURFACE WEATHER OBSERVATIONS
(FORMERLY FORM NAVAL WEATHER SERVICE LSE)

SUNRISE | SUNSET | STATION ELEVATION (ft) | TIME CONVERSION (EST to / Prevailing Time) | MAG TO TRUE | DAY | MONTH | YEAR

02 | 07 | AUG | 79

SKY AND CEILING (HUNDREDS OF FEET)	VISIBILITY (STATUTE MILES) SURFACE	VISIBILITY (STATUTE MILES) TOWER	WEATHER AND OBSTRUCTIONS TO VISION	SEA LEVEL PRES (mb)	TEMP (°F)	DEW POINT (°F)	WIND DIREC (TRUE)	WIND SPEED (knots)	WIND CHAR (GUSTS)	ALSTAG (inches)	REMARKS AND SUPPLEMENTARY CODED DATA
(3)	(4)	(4a)	(5)	(6)	(7)	(8)	(10)	(11)		(12)	
OVC	7+				65	60	17	03			10/10 ST
OVC	7+				64	59	00	00			10/10 ST
OVC	7+				65	60	00	00			10/10 ST
OVC	7+				65	61	20	02			10/10 ST BINOVC
[illegible]	7				68	60	25	05			9/10 ST
SCT	7				72	60	00	00			1/10 ST ST OFSHR WNDS 1/2
[illegible]	M				M	M	33	07			
CLR	7				80	61	22	03			ST OFSHR
CLR	10				78	60	21	07			ST OFSLS
[illegible]	10				76	61	21	04			
[illegible]	10				81	67	20	04			SC W
[illegible]	10				76	61	21	10			SC W
[illegible]	10				74	M	24	08			SC W
SCT	10				74	59	28	06			1/10 SC W
CLR	10				71	57	28	06			FEW SC W
CLR	10				70	57	28	05			FEW SC W
[illegible]	10				74	59	24	04			FEW SC W
[illegible]	10				63	59	31	02			
CLR	7				62	59	32	03			ST OFSHR
CLR	7				M	M	32	03			ST OFSHR
CLR	7				M	M	32	03			ST OFSHR
BKN	M				M	M	31	04			9/10 ST

FEDERAL METEOROLOGICAL FORM 1 - 10 SURFACE WEATHER OBSERVATIONS
(ABRIDGED FOR NAVAL WEATHER SERVICE USE)

SUNRISE | SUNSET | STATION ELEVATION (H_p) | TIME CONVERSION (LST to GMT) | MAG TO TRUE | DAY 06 | MONTH AUG | YEAR 79

TIME (LST) (1)	SKY AND CEILING (HUNDREDS OF FEET) (2)	VISIBILITY (STATUTE MILES) SURFACE (4)	VISIBILITY (STATUTE MILES) TOWER (4a)	WEATHER AND OBSTRUCTIONS TO VISION (5)	SEA LEVEL PRES (mb) (6)	TEMP (°F) (7)	DEW-POINT (°F) (8)	WIND DIRECTION (9)	WIND SPEED (knots) (10)	WIND CHARACTER (11)	ALSTAG (inches) (12)	REMARKS AND SUPPLEMENTARY CODED DATA (13)
0100	BKN	7				69	64	14	02			6/10 AC/AS
0300	BKN	7				69	63	17	02			6/10 AC
0500	SCT	7				68	62	00	00			5/10 AC
0700	SCT	7				66	63	31	02			1/10 CS 4/10 AC
0900	SCT SCT	7				67	63	00	00			1/10 CS 4/10 AC WND L/V
1100	SCT	7				72	65	32	04			3/10 AS
1300	SCT	7				77	63	31	06			1/10 AC/AS
1500	SCT	10				80	63	32	03			1/10 AC/AS
1700	SCT SCT	10				89	62	28	05			1/10 AS 1/10 TCU NE-E
1900	SCT SCT	10				89	60	28	07			1/10 AS 1/10 TCU NE-E
2100	SCT SCT	10				89	62	32	08			1/10 CI 1/10 TCU NE-E
2300	-X SCT	10				91	57	27	04			1/10 CI 1/10 K N 0/10 TCU NE-E
0100	SCT SCT	10				92	54	29	08			1/10 CB/TCU E 2/10 CI 0/10 K N
0300	SCT SCT	10				89	52	31	07			2/10 CB E 1/10 CI 0/10 K N
0500	SCT SCT	10				87	52	30	06			2/10 TCU 3/10 CI 0/10 K N
0700	SCT SCT BKN	10				82	60	27	06			1/10 CB SE 1/10 TCU 4/10 CI
0900	SCT BKN	10				79	62	28	05			1/10 CU 5/10 CI
1100	SCT BKN	10				74	65	30	04			1/10 CB N SE 5/10 CI
1300	SCT BKN	7				71	66	00	00			4/10 AS 5/10 CI
1500	SCT BKN	7				70	66	30	02			3/10 AS 7/10 CI
1700	SCT	7				69	66	27	02			1/10 AC
1900	SCT	7				70	67	30	02			3/10 AC

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FEDERAL METEOROLOGICAL FORM 1 — SURFACE WEATHER OBSERVATIONS

SUNRISE | SUN SET | STATION ELEVATION (Ft.) | TIME CONVERSION (LST to GMT) | MAG TO TRUE | DAY | MONTH | YEAR

07 AUG 79

TIME	SKY CONDITION	WEATHER AND OBSTRUCTIONS TO VISION	SEA LEVEL PRESS MB	TEMP °F	DEW POINT °F	WIND DIRECTION	WIND SPEED (KNOTS)	WIND PEAK ACCEL	ALTIM (INCHES)	REMARKS AND SUPPLEMENTARY CODED DATA
1	4	5	6	7	8	9	10	11	12	13
0330 CLR	10			67	61	00	00			WND V/V
0400	10			66	60	10	02			FEW AC
0430 SCT	10			64	56	00	00			1/10 CU 1/10 AC WND V/V
0500	10			64	60	00	00			1/10 AC WND V/V
0530	10			61	58	32	02			1/10 AC
0600	10			62	59	17	04			1/10 AC FEW CU
0630 SCT SCT	10			64	60	25	05			1/10 CU 1/10 AC
0700 SCT SCT SCT	10			68	63	31	04			1/10 CU 1/10 AC 2/10 CI
0730 SCT SCT BKN	10			69	67	00	01			1/10 CU 1/10 AC 2/10 CI
0800 SCT BKN	10			73	69	21	07			2/10 CU 1/10 CI
0830 SCT BKN	10			77	69	25	04			2/10 CU 5/10 CI
0900 SCT BKN	10			82	69	32	07			2/10 CU 7/10 CI
0930 SCT SCT	10			83	69	33	07			1/10 CU 3/10 CI 9/10 K E
1000 SCT SCT	10			84	69	29	10			1/10 CU 2/10 CI 9/10 ST W 9/10 K E
1030	10			71	65	31	02			1/10 CI 9/10 ST W
1100	10			70	65	30	00			9/10 ST W
1130	10			70	64	30	02			9/10 ST W
1200	10			69	65	00	00			
1230 CLR	10			69	65	30	00			

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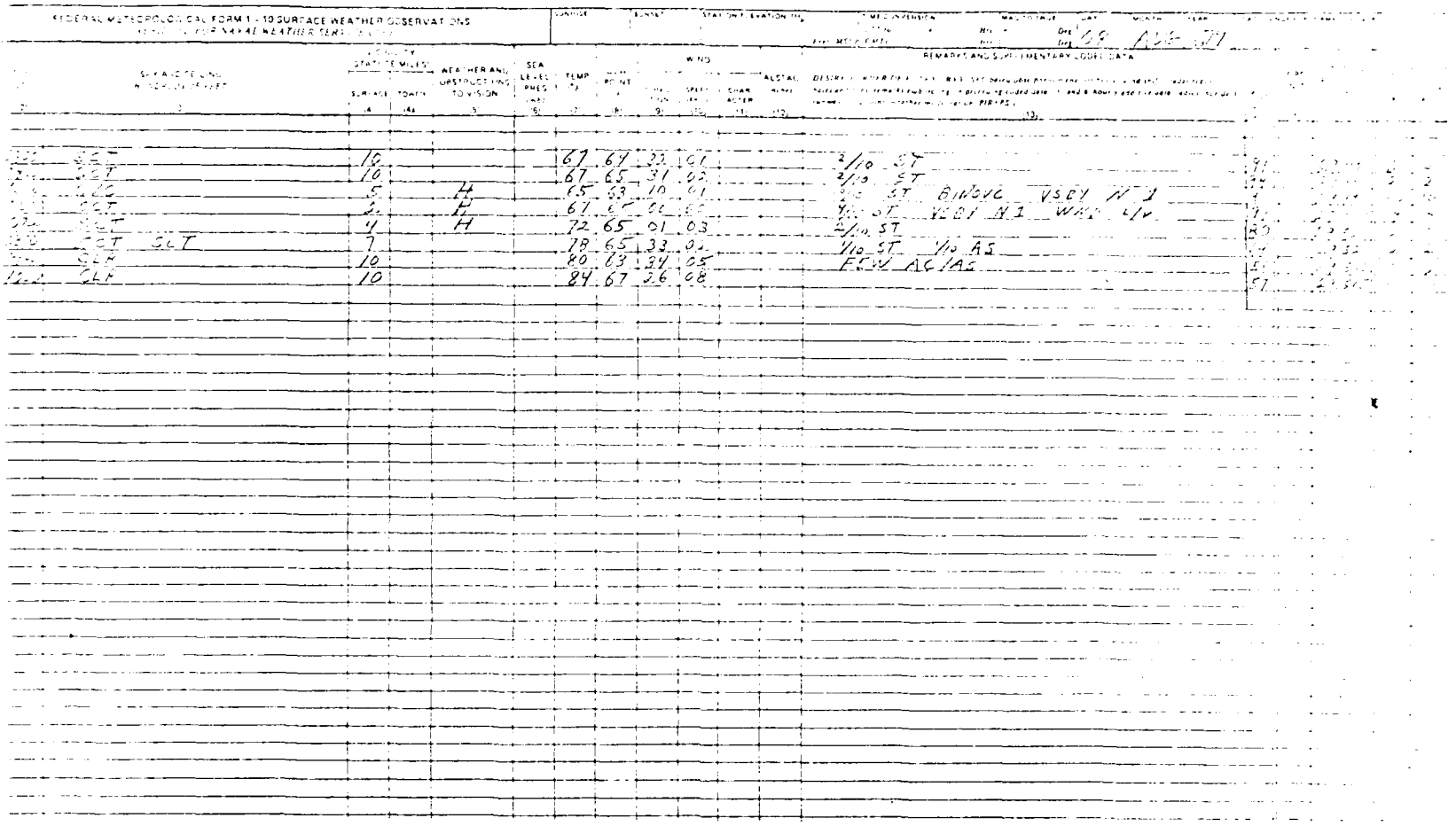

FEDERAL METEOROLOGICAL FORM 1 - 10 SURFACE WEATHER OBSERVATIONS

SUNRISE | SUNSET | STATION ELEVATION (ft) | MAY 68

REMARKS AND SUPPLEMENTARY LOCAL DATA

SKY AND CEILING (HUNDREDS FEET)	VISIBILITY STATUTE MILES: SURFACE	VISIBILITY STATUTE MILES: TOWER	WEATHER AND OBSTRUCTIONS TO VISION	SEA LEVEL PRESS (MB)	TEMP (°F)	DEW POINT	WIND SPEED (KTS)	WIND CHARACTER	ALSTAT (MINS)	REMARKS AND SUPPLEMENTARY LOCAL DATA
SCT	10			67	67	33	01			3/10 ST
SCT	10			67	65	31	02			3/10 ST
SCT	5		H	65	63	10	01			3/10 ST BINOVC VSBY 1/4
SCT	2		H	61	61	00	00			1/10 ST VSBY 1/4 WX+ L/V
SCT	4		H	72	65	01	03			2/10 ST
SCT SCT	7			78	65	33	04			1/10 ST 1/10 AS
SCT	10			80	63	34	05			FEW AC/AS
SCT	10			84	67	36	08			

APPENDIX D

THE PACMISTESTCEN RAWINSONDE OBSERVATION DATA REDUCED AT THE GEOPHYSICS DIVISION, PACMISTESTCEN, POINT MUGU, CALIFORNIA

RAWINSONDE DATA (WBS-1) 03/11/80 1235:59
STATION, PNAS MIRAMAR, CALIF.
0045Z 01 AUG 1979
FOR OP. NO. NONE
ASCENT NO. 001
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	PW(M)	PWIN	PWPW	PWSUM
445	0	26.6	7.6	999.0	30	260	5	302	00		7.56	26.6	0	6.58	136			
590	0	24.7	13.6	994.0	50	0	0	324	02		11.37	25.2	.155	9.89	180	.016	.42	.42
1174	729	22.8	15.0	974.0	61	249	4	328	10	0	12.52	25.1	.006	11.01	358	.084	2.12	2.54
1263	0	24.0	15.6	971.0	59	0	0	328	11		12.91	26.5	.002	11.49	385	.013	.34	2.88
1561	0	26.1	-4.9	961.0	13	0	0	267	15		3.09	29.5	-0.205	2.86	476	.029	.73	3.61
1802	0	25.4	-9.6	953.0	9	0	0	260	18		2.15	29.5	-0.028	1.91	549	.008	.19	3.81
1953	779	26.6	-8.8	948.0	9	219	3	258	20	0	2.27	31.2	-0.011	2.06	595	.004	.10	3.91
2352	0	27.0	-11.4	935.0	7	0	0	252	25		1.84	32.9	-0.016	1.67	717	.010	.25	4.15
2726	773	27.3	-11.3	923.0	7	290	5	249	30	0	1.86	34.2	-0.009	1.72	831	.008	.21	4.36
3425	0	27.8	-11.0	901.0	7	0	0	243	38		1.90	36.9	-0.008	1.81	1044	.016	.39	4.76
3618	892	26.6	4.8	895.0	25	309	7	267	40	0	6.21	36.2	.124	6.11	1103	.010	.24	5.00
4042	0	25.6	13.7	882.0	48	0	0	294	45		11.34	36.5	.064	11.32	1232	.045	1.15	6.15
4437	819	25.6	4.3	870.0	25	347	8	261	50	0	6.03	37.7	-0.085	5.92	1352	.041	1.05	7.20
4872	0	26.8	-4.3	857.0	13	0	0	240	55		3.20	40.3	-0.047	3.34	1485	.024	.61	7.81
5314	877	25.4	2.1	844.0	22	358	9	249	60	0	5.17	40.2	.021	5.31	1620	.022	.57	8.38
5726	0	24.0	7.5	832.0	35	0	0	261	65		7.58	40.0	.029	7.91	1745	.032	.81	9.19
6178	864	23.8	5.6	819.0	31	35	7	252	70	0	6.64	41.2	-0.019	7.02	1883	.039	.99	10.17
6636	0	22.6	5.3	806.0	32	0	0	249	75		6.53	41.4	-0.007	6.85	2025	.036	.92	11.09
7100	922	21.3	6.9	793.0	39	41	7	252	80	0	7.32	41.5	.005	7.85	2168	.038	.97	12.06
7533	0	19.6	7.3	781.0	45	0	0	251	85		7.55	41.0	-0.001	8.29	2296	.039	.98	13.04
7934	834	19.2	3.2	770.0	35	57	7	238	90	0	5.69	41.8	-0.033	6.36	2418	.032	.82	13.85
8377	0	17.7	5.2	758.0	44	0	0	241	95		6.61	41.7	.008	7.40	2553	.033	.84	14.70
8788	854	16.5	6.5	747.0	52	52	6	243	100	0	7.25	41.7	.005	8.24	2679	.034	.87	15.57
9241	0	15.5	6.3	735.0	54	0	0	240	105		7.16	42.0	-0.006	8.16	2817	.039	1.00	16.57
9661	873	14.5	3.9	724.0	49	84	6	232	110	0	6.09	42.3	-0.020	7.03	2945	.033	.85	17.42
10086	0	13.7	2.9	713.0	48	0	0	227	115		5.67	42.9	-0.011	6.64	3074	.030	.76	18.19
10556	895	13.5	-2.4	701.0	33	82	4	213	120	0	3.88	44.2	-0.029	4.57	3217	.027	.68	18.87
11396	840	12.0	-5.8	680.0	28	79	2	203	130		3.02	45.2	-0.012	3.61	3473	.034	.87	19.74
12255	859	9.6	-5.7	659.0	33	8	5	199	140		3.06	45.4	-0.004	3.75	3735	.031	.79	20.53
13136	881	7.3	-8.9	638.0	30	359	6	191	150		2.40	45.7	-0.009	3.01	4004	.028	.72	21.25
14038	902	5.4	-15.4	617.0	21	350	2	181	160		1.44	46.6	-0.012	1.91	4279	.021	.52	21.77
14876	838	4.2	-24.0	598.0	11	80	3	172	170	0	.68	48.1	-0.011	.95	4534	.011	.28	22.05
15740	864	4.7	-43.4	579.0	1	71	13	162	180		.10	51.7	-0.011	.09	4798	.004	.10	22.15
16206	0	4.9	-46.9	569.0	1	0	0	159	185		.07	53.5	-0.007	.09	4940	.000	.01	22.16
16633	893	3.7	-47.7	560.0	1	63	26	157	190		.06	53.6	-0.004	.09	5070	.000	.01	22.16
17550	917	1.4	-49.1	541.0	1	55	29	153	200		.05	54.1	-0.004	.08	5349	.001	.02	22.18

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS 1) 03/11/80 1236:45
STATION, PNAS MIRAMAR, CALIF.
0514Z 01 AUGUST 1979
FOR OP NO NONE
ASCENT NO 002
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	R(M)	PWIN	PWMN	PWSUM
445	0	19.0	17.5	999.6	91	0	0	353	00		14.88	19.1	0	12.70	136			
576	0	18.8	18.7	995.0	100	0	0	359	02		16.13	19.2	.049	13.87	176	.024	.62	.62
1092	0	18.0	17.9	977.0	100	0	0	351	09		15.35	19.9	-0.016	13.43	333	.098	2.50	3.12
1164	719	21.9	-14.0	974.5	8	0	0	265	10	0	1.52	24.1	-1.181	1.35	355	.007	.19	3.30
1267	0	24.1	-35.2	971.0	1	0	0	255	11		.22	26.7	-0.102	.19	386	.001	.03	3.33
1593	0	25.1	-34.4	960.0	1	0	0	251	15		.24	28.6	-0.011	.21	486	.001	.02	3.35
2015	851	24.6	-34.2	946.0	1	0	0	248	20	0	.24	29.4	-0.008	.20	614	.001	.03	3.38
2474	0	26.7	-33.7	931.0	1	0	0	242	25		.25	32.9	-0.012	.23	754	.001	.03	3.42
2943	928	26.5	-33.8	916.0	1	0	0	239	30	0	.25	34.1	-0.008	.24	897	.001	.04	3.45
3419	0	26.5	-33.8	901.0	1	0	0	235	35		.25	35.6	-0.008	.24	1042	.001	.04	3.49
3903	960	24.4	8.6	886.0	37	0	0	278	40	0	8.17	34.8	.090	8.04	1190	.025	.63	4.12
4360	0	24.1	5.0	872.0	29	0	0	264	45		6.34	36.0	-0.030	6.27	1329	.040	1.02	5.14
4825	922	24.6	.4	858.0	20	335	22	250	50	0	4.59	37.9	-0.030	4.52	1471	.030	.77	5.91
5268	0	25.3	-21.2	845.0	3	0	0	224	55		.82	40.0	-0.058	.71	1604	.014	.35	6.25
5743	918	24.1	-15.8	831.0	6	332	8	224	60	0	1.30	40.3	0	1.35	1750	.006	.15	6.40
6229	0	22.5	1.9	817.0	26	0	0	244	65		5.13	40.1	.041	5.44	1899	.019	.48	6.88
6722	979	21.6	-0.8	803.0	22	328	5	236	70	0	4.23	40.7	-0.017	4.43	2049	.028	.70	7.58
7221	0	20.8	-1.5	789.0	22	0	0	232	75		4.03	41.4	-0.008	4.29	2201	.024	.62	8.20
7692	970	19.5	-5.4	776.0	18	357	5	223	80	0	3.02	41.5	-0.018	3.29	2345	.020	.50	8.70
8168	0	18.6	-13.3	763.0	10	0	0	212	85		1.63	42.1	-0.023	1.75	2490	.013	.33	9.04
8650	958	17.6	-13.6	750.0	11	1	8	210	90	0	1.60	42.5	-0.006	1.84	2637	.009	.24	9.27
9101	0	16.1	-10.8	738.0	15	0	0	210	95		2.01	42.4	.001	2.32	2774	.010	.25	9.53
9585	945	14.7	-12.5	725.0	14	6	9	206	100	0	1.76	42.5	-0.008	2.02	2925	.011	.29	9.82
10058	0	14.1	-12.5	713.0	15	0	0	203	105		1.77	43.3	-0.006	2.11	3066	.010	.25	10.07
10566	971	12.6	-7.5	700.0	24	32	13	206	110	0	2.64	43.3	.005	3.13	3221	.014	.35	10.41
11443	877	10.3	-12.9	678.0	18	39	13	196	120		1.73	43.6	-0.011	2.08	3488	.023	.58	10.99
12299	856	8.0	-15.9	657.0	16	41	10	190	130		1.36	43.8	-0.007	1.63	3749	.016	.40	11.39
13176	877	5.7	-22.0	636.0	11	32	8	182	140		.81	44.2	-0.009	.99	4016	.011	.28	11.67
14118	942	3.6	-47.7	614.0	1	26	12	173	150		.06	45.1	-0.010	.08	4303	.005	.12	11.79
14293	0	3.3	-26.3	610.0	9	0	0	175	152		.56	45.3	.012	.71	4356	.001	.02	11.80
15002	884	4.7	-47.1	594.0	1	59	11	166	160	0	.07	49.3	-0.012	.09	4573	.003	.07	11.87
15917	915	3.3	-47.9	574.0	1	53	21	161	170		.06	50.9	-0.005	.08	4851	.001	.02	11.89
16859	942	2.0	-48.7	554.0	1	61	26	157	180	0	.06	52.6	-0.005	.08	5139	.001	.02	11.90
17781	922	0	-49.9	535.0	1	60	27	152	190		.05	53.5	-0.005	.07	5420	.001	.01	11.92
18678	898	-2.0	-51.2	517.0	1	49	31	148	200		.04	54.2	-0.004	.06	5693	.000	.01	11.93

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1237:29
STATION, PNAS MIRAMAR, CALIF.
11182 01 AUG 1979
FOR OP. NO. NONE
ASCENT NO. 003
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMH	PWSUM
445	0	18.0	17.9	999.6	99	250	1	356	00		15.24	18.0	0	12.98	136			
859	0	17.0	16.3	985.0	96	0	0	345	05		13.84	18.2	-0.026	11.98	262	.073	1.85	1.85
1201	816	16.4	15.7	971.0	96	120	1	339	10	0	13.34	18.8	-0.015	11.69	384	.066	1.68	3.53
2090	829	24.1	-35.3	943.0	1	352	4	247	20	0	.22	29.1	-0.111	.20	637	.067	1.69	5.23
2519	0	25.2	-34.6	929.0	1	0	0	243	25		.23	31.6	-0.011	.21	768	.001	.03	5.25
2955	865	25.2	-34.6	915.0	1	204	1	239	30	0	.23	32.9	-0.008	.22	901	.001	.03	5.29
3494	0	25.2	-16.7	898.0	5	0	0	240	36		1.20	34.6	.002	1.11	1065	.005	.11	5.40
3815	860	25.7	-34.3	888.0	1	334	7	232	40	0	.24	36.0	-0.026	.23	1163	.003	.07	5.47
4273	0	26.4	-33.9	874.0	1	0	0	228	45		.25	38.2	-0.009	.25	1302	.001	.03	5.50
4705	890	26.6	-33.7	861.0	1	327	15	224	50	0	.25	39.8	-0.008	.25	1434	.001	.03	5.54
5144	0	25.7	-34.3	848.0	1	0	0	222	55		.24	40.1	-0.006	.24	1568	.001	.03	5.57
5588	883	25.0	-34.7	835.0	1	326	15	219	60	0	.23	40.8	-0.007	.24	1703	.001	.03	5.60
6038	0	24.3	-35.1	822.0	1	0	0	216	65		.22	41.5	-0.007	.23	1840	.001	.03	5.63
6493	985	23.2	-28.0	809.0	2	315	11	214	70	0	.44	41.7	-0.003	.44	1979	.002	.04	5.67
6741	0	22.3	-19.3	802.0	5	0	0	216	73		.97	41.5	.008	1.05	2055	.002	.05	5.73
7386	893	21.4	-36.9	784.0	1	306	7	208	80	0	.19	42.6	-0.013	.20	2251	.004	.11	5.84
8264	878	19.3	-38.2	760.0	1	10	6	203	90	0	.17	43.1	-0.006	.18	2519	.002	.05	5.89
9164	900	16.8	-39.7	736.0	1	73	4	198	100	0	.14	43.3	-0.005	.16	2793	.002	.04	5.93
10047	883	14.4	-22.0	713.0	6	97	5	197	110	0	.79	43.6	-0.001	.86	3062	.005	.12	6.05
10912	865	12.5	-42.3	691.0	1	149	7	188	120		.11	44.3	-0.010	.13	3326	.004	.11	6.16
11799	887	10.2	-43.6	669.0	1	167	11	184	130		.10	44.8	-0.005	.12	3596	.001	.03	6.19
12708	909	8.1	-45.0	647.0	1	160	9	179	140		.08	45.4	-0.005	.10	3873	.001	.02	6.21
13642	934	6.2	-46.1	625.0	1	138	5	174	150	0	.07	46.3	-0.005	.09	4158	.001	.02	6.23
14561	919	5.6	-46.5	604.0	1	95	13	169	160		.07	48.9	-0.006	.09	4438	.001	.02	6.25
15464	903	5.3	-46.7	584.0	1	90	15	163	170	0	.07	51.6	-0.006	.09	4713	.001	.02	6.27
16395	931	2.9	-48.1	564.0	1	87	16	159	180		.06	52.1	-0.005	.08	4997	.001	.02	6.29
17344	949	.8	-49.4	545.0	1	71	20	155	190		.05	52.7	-0.005	.07	5274	.001	.02	6.31
18187	883	-1.1	-50.6	527.0	1	64	21	151	200		.04	53.6	-0.005	.07	5543	.001	.01	6.32

A,FTN 882 (PAUSE 33333)

RAWINSONDE DATA (WBS 1) 03/11/80 1238:17
STATION, SNAS MIRAMAR, CALIF.
1715Z 01 AUG 1979
FOR OP NO NONE
ASCENT NO. 004
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMN	PWSUM
445	0	25.3	15.4	1000.9	54	160	2	333	00		12.72	25.2	0	11.02	136			
848	0	23.6	14.9	987.0	58	0	0	329	05		12.34	24.8	-0.010	10.84	258	.061	1.54	1.54
1258	813	22.5	14.0	973.0	59	280	1	323	10	0	11.74	24.8	-0.014	10.46	383	.060	1.51	3.06
1464	0	22.3	13.8	966.0	59	0	0	321	13		11.58	25.2	-0.012	10.40	446	.029	.74	3.80
1672	0	22.0	11.8	959.0	52	0	0	311	16		10.17	25.6	-0.047	9.05	510	.027	.69	4.49
2033	775	26.0	-25.5	947.0	2	171	4	249	20	0	.56	30.7	-0.173	.44	620	.023	.58	5.07
2462	0	26.0	-17.1	933.0	5	0	0	249	25		1.15	32.0	0	1.12	750	.004	.11	5.18
2899	866	27.2	-1.5	919.0	15	186	6	260	30	0	3.94	34.6	.026	3.69	884	.013	.34	5.52
3312	0	28.0	-20.7	906.0	3	0	0	238	35		.85	36.6	-0.052	.78	1009	.012	.29	5.82
3762	863	27.2	-31.9	892.0	1	274	5	232	40	0	.30	37.2	-0.014	.25	1147	.003	.07	5.89
4187	0	26.5	-6.9	879.0	11	0	0	243	45		2.64	37.7	.025	2.71	1276	.008	.20	6.09
4617	855	26.2	-6.1	866.0	11	343	17	241	50	0	2.81	38.8	-0.005	2.70	1407	.014	.36	6.44
5053	0	26.0	-6.2	853.0	11	0	0	237	55		2.78	39.9	-0.008	2.71	1540	.014	.36	6.80
5496	879	25.5	-6.6	840.0	11	337	20	234	60	0	2.71	40.8	-0.008	2.67	1675	.014	.36	7.16
6390	902	23.6	-7.9	814.0	12	343	17	227	70	0	2.46	41.6	-0.007	2.68	1950	.028	.71	7.86
7324	926	21.6	-9.3	788.0	12	348	12	220	80	0	2.21	42.4	-0.007	2.45	2232	.027	.68	8.54
8237	913	19.4	-7.9	763.0	15	354	11	217	90	0	2.49	42.9	-0.004	2.77	2511	.026	.66	9.20
9135	898	17.1	-5.7	739.0	20	28	4	215	100	0	2.98	43.3	-0.002	3.30	2784	.029	.74	9.94
10017	882	15.1	-8.4	716.0	19	150	1	207	110	0	2.44	43.9	-0.009	2.85	3053	.028	.72	10.66
10882	865	13.1	-18.0	694.0	19	204	5	201	120		2.17	44.6	-0.007	2.58	3317	.024	.61	11.27
11708	826	11.2	-9.5	672.0	22	186	8	197	130		2.27	45.4	-0.005	2.72	3587	.023	.59	11.86
12577	909	8.6	-8.0	650.0	30	176	10	195	140		2.58	45.5	-0.003	3.23	3864	.026	.66	12.53
13469	932	6.1	-7.5	628.0	37	175	10	191	150		2.70	45.8	-0.004	3.47	4148	.029	.75	13.27
14171	0	4.2	-7.3	615.0	43	0	0	189	156		2.77	45.6	-0.003	3.61	4319	.018	.47	13.74
14522	913	5.8	-25.2	607.0	9	169	10	173	160		.61	48.6	-0.047	.85	4426	.007	.18	13.92
14835	0	7.0	-42.1	600.0	1	0	0	167	163		.11	51.0	-0.018	.10	4522	.001	.03	13.96
15470	948	5.1	-42.3	586.0	2	96	9	164	170		.11	51.0	-0.004	.19	4715	.001	.02	13.98
16397	927	3.0	-48.1	566.0	1	91	14	159	180		.06	51.8	-0.005	.08	4998	.001	.03	14.01
17352	955	1.2	-49.2	546.0	1	80	22	155	190		.05	53.0	-0.005	.08	5289	.001	.02	14.02
18285	933	-0.6	-50.3	527.0	1	70	26	150	200		.05	54.2	-0.005	.07	5573	.001	.01	14.04

A FTN 002 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1239:35
STATION, SNAS MIRAMAR, CALIF.
2015Z 01 AUG 1979
FOR OP. NO. NONE
ASCENT NO. 005
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWHM	PWSUM
445	0	27.0	15.1	1000.0	48	270	8	329	00		12.40	27.0	0	10.83	136			
882	0	23.7	15.5	985.0	60	0	0	332	05		12.86	25.0	.005	11.31	269	.066	1.69	1.69
1322	877	22.5	15.2	970.0	63	255	11	328	10	0	12.68	25.1	-0.008	11.21	403	.068	1.72	3.40
1618	0	21.6	14.8	960.0	65	0	0	325	14		12.36	25.1	-0.012	11.06	493	.045	1.13	4.53
1738	0	23.4	.4	956.0	22	0	0	277	15		4.59	27.3	-0.402	4.15	530	.012	.31	4.84
1888	0	25.8	-2.9	951.0	15	0	0	267	17		3.57	30.1	-0.062	3.28	575	.007	.19	5.03
2162	840	25.8	-5.3	942.0	12	234	8	262	20	0	2.99	30.9	-0.021	2.64	659	.011	.27	5.30
2594	0	26.0	-5.1	928.0	12	0	0	258	25		3.02	32.5	-0.008	2.72	791	.015	.38	5.68
3064	902	26.3	-6.0	913.0	11	232	4	253	30	0	2.83	34.2	-0.011	2.58	934	.016	.40	6.09
3510	0	26.3	-6.0	899.0	11	0	0	249	35		2.83	35.5	-0.008	2.62	1070	.015	.37	6.46
3930	866	26.3	-6.0	886.0	11	281	4	246	40	0	2.83	36.8	-0.008	2.65	1198	.014	.35	6.80
4391	0	27.3	-1.5	872.0	15	0	0	248	45		3.96	39.3	.004	3.91	1338	.018	.47	7.27
4860	930	27.3	-0.8	858.0	16	344	14	245	50	0	4.15	40.7	-0.005	4.24	1481	.023	.58	7.85
5750	890	25.8	-1.9	832.0	16	334	22	238	60		3.85	41.9	-0.008	4.00	1753	.043	1.09	8.94
6627	877	23.9	-4.4	807.0	15	337	20	229	70	0	3.23	42.7	-0.010	3.45	2020	.037	.95	9.89
7489	862	22.1	-3.8	783.0	17	334	17	226	80	0	3.39	43.5	-0.005	3.61	2283	.034	.86	10.75

A FIN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1240.08
STATION, SNAS MIRAMAR, CALIF.
2048Z 01 AUG 1979
FOR OP NO. NONE
ASCENT NO. 006
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	R(M)	PWIN	PWHH	PWSUM
445	0	27.0	17.5	1000.0	56	270	8	341	00		14.40	27.0	0	12.68	136			
853	0	24.1	15.8	986.0	60	0	0	333	04		13.07	25.3	-0.020	11.58	260	.068	1.72	1.72
1382	937	22.9	9.3	968.0	42	274	9	303	10	0	8.58	25.7	-0.056	7.63	421	.069	1.76	3.48
1530	0	22.7	2.2	963.0	26	0	0	283	12		5.25	25.9	-0.138	4.67	466	.012	.31	3.79
1709	0	26.0	-7.7	957.0	10	0	0	262	14		2.48	29.8	-0.115	2.19	521	.008	.21	4.00
2288	906	27.5	-14.6	938.0	5	254	4	250	20	0	1.42	33.0	-0.021	1.22	697	.013	.33	4.33
2723	0	27.0	-10.3	924.0	8	0	0	250	25		2.01	33.8	0	1.93	830	.009	.22	4.56
3165	877	26.7	-10.5	910.0	8	258	4	247	30	0	1.99	34.9	-0.008	1.92	965	.011	.27	4.83
3613	0	27.0	-14.8	896.0	5	0	0	240	35		1.39	36.5	-0.016	1.24	1101	.009	.22	5.05
4036	871	28.0	-2.5	883.0	14	316	4	248	40	0	3.67	38.9	.021	3.75	1230	.013	.33	5.38
4467	0	28.7	-3.2	870.0	12	0	0	243	45		3.45	41.0	-0.012	3.40	1362	.019	.47	5.86
4905	869	27.5	-4.1	857.0	12	342	16	240	50	0	3.24	41.0	-0.008	3.21	1495	.017	.44	6.29
5347	0	26.2	-7.5	844.0	10	0	0	233	55		2.51	41.1	-0.015	2.52	1630	.015	.38	6.67
5796	889	25.3	-8.2	831.0	10	336	19	230	60	0	2.39	41.5	-0.007	2.42	1766	.013	.33	7.00
6670	876	23.2	-6.0	806.0	14	328	16	228	70	0	2.86	42.0	-0.003	3.09	2033	.028	.70	7.70
7531	861	21.6	-6.5	782.0	15	329	12	222	80	0	2.77	43.0	-0.007	3.09	2295	.030	.75	8.45
8414	883	19.6	-4.0	758.0	20	344	9	221	90	0	3.37	43.7	-0.001	3.77	2565	.033	.84	9.29
9320	906	17.4	-4.7	734.0	22	55	1	215	100	0	3.22	44.3	-0.006	3.73	2841	.036	.91	10.20
10209	889	15.4	-6.9	711.0	21	292	3	207	110	0	2.73	45.0	-0.009	3.23	3112	.032	.81	11.02
11081	872	13.4	-7.6	689.0	22	238	3	202	120		2.60	45.6	-0.006	3.07	3377	.028	.70	11.72
11975	894	11.3	-10.7	667.0	20	227	5	194	130		2.06	46.2	-0.009	2.51	3650	.025	.62	12.34
12849	874	8.9	-11.7	646.0	22	213	8	189	140		1.91	46.4	-0.006	2.43	3916	.021	.53	12.87
13745	896	7.3	-12.0	625.0	24	189	12	185	150		1.89	47.6	-0.005	2.45	4189	.020	.52	13.39
14225	0	6.5	-10.0	614.0	29	0	0	184	155		2.22	48.4	-0.001	2.86	4336	.012	.30	13.69
14667	922	5.3	-13.6	604.0	24	184	17	179	160		1.67	48.5	-0.012	2.21	4470	.010	.26	13.94
15615	948	3.9	-20.0	583.0	15	162	11	169	170		.98	50.2	-0.010	1.30	4759	.015	.37	14.32
16546	931	2.8	-29.1	563.0	7	129	8	161	180		.43	52.0	-0.009	.58	5043	.007	.19	14.51
17457	911	1.6	-29.8	544.0	7	82	15	156	190		.40	53.8	-0.005	.55	5321	.004	.11	14.62
18346	889	.3	-30.7	526.0	8	67	27	152	200		.37	55.4	-0.005	.59	5592	.004	.10	14.72

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS 1) 03/11/80 1257:45
STATION PNAS MIRAMAR CALIF
2315Z 01 AUGUST 1979
FOR OP NO NONE
ASCENT NO 007
INTERMEDIATE OUTPUT VERSION NO 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	24.3	15.3	998.9	57	295	6	334	00		12.68	24.4	0	10.98	136			
964	0	22.5	14.1	981.0	59	0	0	326	05		11.80	24.1	-0.015	10.37	294	.076	1.94	1.94
1286	0	20.7	14.1	970.0	66	0	0	325	09		11.87	23.3	-0.002	10.51	392	.046	1.17	3.11
1403	958	20.7	10.3	966.0	51	302	9	309	10	0	9.23	23.6	-0.140	8.12	428	.015	.38	3.49
1492	0	20.7	-2.5	963.0	21	0	0	276	11		3.74	23.9	-0.372	3.33	455	.007	.17	3.66
1640	0	24.6	-11.7	958.0	8	0	0	260	13		1.81	28.3	-0.108	1.61	500	.005	.13	3.79
2185	782	26.0	-20.7	940.0	4	299	5	249	20	0	.85	31.4	-0.021	.89	666	.009	.23	4.02
2773	0	25.8	-29.4	921.0	2	0	0	241	27		.39	32.9	-0.013	.45	845	.005	.13	4.14
3024	839	26.5	-33.3	913.0	1	307	8	238	30	0	.26	34.4	-0.013	.24	922	.001	.03	4.17
3567	0	27.2	-5.6	896.0	11	0	0	248	37		2.91	36.8	.019	2.77	1087	.010	.26	4.43
3794	770	27.5	-5.4	889.0	11	313	9	246	40	0	2.95	37.8	-0.008	2.84	1156	.008	.20	4.63
4155	0	27.2	-5.6	878.0	11	0	0	243	45		2.91	38.6	-0.008	2.82	1266	.012	.32	4.95
4554	760	27.2	-6.0	866.0	11	329	10	240	50	0	2.81	39.8	-0.009	2.86	1388	.014	.35	5.29
4924	0	27.2	-10.0	855.0	8	0	0	233	55		2.06	41.0	-0.019	2.11	1501	.011	.28	5.57
5333	779	27.0	-14.2	843.0	6	348	16	226	60	0	1.47	42.0	-0.015	1.58	1625	.009	.22	5.80
5712	0	26.0	-13.8	832.0	6	0	0	225	65		1.52	42.2	-0.005	1.51	1741	.007	.17	5.97
6095	762	25.8	-10.8	821.0	8	333	16	225	70	0	1.95	42.4	.001	1.93	1858	.008	.19	6.16
6909	814	23.4	-9.2	798.0	11	324	18	222	80	0	2.23	43.2	-0.004	2.48	2106	.020	.51	6.68
7705	796	20.9	-7.4	776.0	14	331	11	220	90	0	2.59	43.1	-0.002	2.79	2348	.023	.59	7.27
8518	813	19.2	-7.4	754.0	16	346	5	215	100	0	2.60	43.8	-0.006	2.95	2596	.025	.64	7.91
9312	794	17.1	-7.5	733.0	18	323	4	211	110	0	2.59	44.1	-0.005	2.99	2838	.025	.63	8.54
10123	811	15.3	-9.9	712.0	17	295	3	204	120	0	2.16	44.7	-0.008	2.59	3085	.023	.60	9.14
10555	0	14.3	-10.7	701.0	17	0	0	201	125		2.04	45.0	-0.007	2.47	3217	.011	.28	9.42
10913	790	14.1	-12.5	692.0	15	287	6	198	130		1.77	46.0	-0.011	2.18	3326	.008	.21	9.63
11723	810	11.9	-14.1	672.0	15	259	7	192	140		1.56	46.3	-0.006	1.94	3573	.016	.42	10.05
12550	827	9.7	-13.4	652.0	18	230	9	189	150		1.66	46.5	-0.004	2.07	3825	.016	.41	10.46
13355	805	8.2	-11.9	633.0	22	209	10	186	160		1.88	47.5	-0.004	2.36	4071	.017	.43	10.89
14179	824	6.6	-14.4	614.0	21	199	14	180	170		1.55	48.5	-0.008	2.08	4322	.017	.43	11.32
15025	846	4.9	-19.5	595.0	15	227	10	172	180		1.01	49.4	-0.009	1.36	4580	.013	.33	11.65
15846	821	3.2	-28.6	577.0	7	173	7	165	190		.45	50.3	-0.009	.58	4830	.007	.18	11.83
16688	842	1.9	-35.7	559.0	4	109	11	159	200	0	.23	51.6	-0.007	.31	5086	.003	.08	11.91

A FIN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS 1) 03/11/80 1252:43
STATION, PNAS MIRAMAR, CALIF
0512Z 02 AUGUST 1979
FOR OP. NO. NONE
ASCENT NO. 008
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	Ht DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	17.6	17.1	999.2	97	260	2	353	00		14.58	17.6	0	12.40	136			
848	0	17.1	17.0	985.0	99	0	0	349	05		14.49	18.4	-0.009	12.44	258	.071	1.79	1.79
1250	805	16.7	16.7	971.0	100	0	0	344	10	0	14.17	19.2	-0.013	12.43	381	.070	1.77	3.56
1454	0	16.3	16.2	964.0	99	0	0	340	13		13.82	19.4	-0.017	12.07	443	.034	.87	4.43
1600	0	16.9	16.8	959.0	99	0	0	341	14		14.27	20.4	.004	12.62	488	.025	.63	5.06
1984	0	18.6	3.5	946.0	36	0	0	286	19		5.81	23.3	-0.144	5.12	605	.046	1.17	6.23
2073	823	19.7	-3.9	943.0	20	0	0	270	20	0	3.39	24.7	-0.179	3.04	632	.005	.12	6.35
2500	0	25.9	-34.2	929.0	1	0	0	242	25		.24	32.3	-0.064	.22	762	.009	.23	6.59
2937	864	26.2	-34.0	915.0	1	0	0	239	30	0	.25	33.9	-0.009	.23	895	.001	.03	6.62
3381	0	26.6	-33.7	901.0	1	0	0	235	35		.25	35.7	-0.009	.24	1031	.001	.03	6.65
3768	831	26.2	-34.0	889.0	1	0	0	232	40	0	.25	36.4	-0.007	.24	1148	.001	.03	6.68
4159	0	25.9	-34.2	877.0	1	0	0	229	45		.24	37.4	-0.008	.24	1268	.001	.03	6.71
4589	821	25.7	-34.3	864.0	1	0	0	226	50		.24	38.4	-0.007	.24	1399	.001	.03	6.74
4756	0	26.4	-33.9	859.0	1	0	0	224	52		.25	39.7	-0.011	.25	1450	.000	.01	6.75
5400	811	25.2	-34.6	840.0	1	0	0	220	60	0	.23	40.4	-0.006	.24	1646	.002	.05	6.80
6231	831	24.0	-35.3	816.0	1	0	0	214	70	0	.22	41.8	-0.007	.23	1899	.002	.06	6.86
7047	816	23.1	-35.9	793.0	1	311	11	209	80	0	.21	43.4	-0.007	.22	2148	.002	.05	6.91
7884	837	21.5	-36.8	770.0	1	301	15	204	90	0	.19	44.3	-0.006	.21	2403	.002	.05	6.96
8703	819	18.6	-38.5	748.0	1	290	13	200	100	0	.16	43.9	-0.005	.18	2653	.002	.04	7.00
9539	836	17.1	-39.4	726.0	1	287	14	195	110	0	.15	45.0	-0.006	.17	2907	.002	.04	7.04
10397	858	15.1	-40.7	704.0	1	273	15	190	120	0	.13	45.5	-0.005	.15	3169	.001	.04	7.08
11193	796	12.7	-28.7	684.0	4	260	13	188	130		.43	45.5	-0.003	.53	3412	.003	.07	7.15
11967	774	11.0	-21.3	665.0	8	260	12	187	140		.85	46.2	-0.002	.98	3648	.006	.15	7.29
12758	791	8.9	-31.7	646.0	4	262	12	180	150		.33	46.5	-0.009	.44	3889	.005	.14	7.43
13523	765	6.8	-45.8	628.0	1	244	6	175	160		.08	46.6	-0.007	.10	4122	.002	.05	7.48
14305	782	5.0	-46.8	610.0	1	253	4	171	170		.07	47.3	-0.005	.09	4360	.001	.02	7.50
14481	0	4.3	-46.9	606.0	1	0	0	170	172		.07	47.1	-0.004	.09	4414	.000	.00	7.50
14883	0	6.8	-45.8	597.0	1	0	0	166	178		.08	51.3	-0.010	.10	4536	.000	.01	7.51
15064	759	6.6	-45.9	593.0	1	123	7	165	180		.08	51.7	-0.006	.10	4591	.000	.00	7.51
15799	735	5.2	-46.7	577.0	1	98	13	161	190		.07	52.6	-0.005	.10	4816	.001	.02	7.53
16552	753	3.8	-47.6	561.0	1	102	19	158	200		.06	53.6	-0.005	.09	5045	.001	.01	7.55

A FIN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1259:17
STATION, PNAS MIRAMAR, CALIF.
1215Z 02 AUGUST 1979
ASCENT NO. 009
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	19.1	15.9	997.8	81	0	0	343	00		13.37	19.3	0	11.37	136			
838	0	17.2	15.0	984.0	87	0	0	338	05		12.74	18.6	-0.013	10.99	255	.062	1.57	1.57
1211	766	16.2	15.1	971.0	94	19	4	337	10	0	12.90	18.6	-0.004	11.29	369	.058	1.47	3.04
1588	0	15.2	14.2	958.0	94	0	0	330	15		12.19	18.7	-0.017	10.73	484	.057	1.45	4.49
1939	0	14.2	13.2	946.0	94	0	0	324	19		11.46	18.8	-0.018	10.18	591	.050	1.27	5.77
1998	787	14.0	-11.8	944.0	15	144	3	266	20	0	1.86	18.7	-0.982	1.58	609	.005	.12	5.89
2057	0	13.8	-41.5	942.0	1	0	0	255	21		.12	18.7	-0.184	.10	627	.001	.02	5.90
2236	0	23.6	-35.6	936.0	1	0	0	246	23		.21	29.3	-0.053	.19	682	.000	.01	5.91
2482	0	25.5	-34.4	928.0	1	0	0	242	26		.24	31.9	-0.014	.22	757	.001	.02	5.93
2856	858	25.0	-34.7	916.0	1	243	2	240	30	0	.23	32.6	-0.007	.22	871	.001	.03	5.96
3425	0	24.3	-35.1	898.0	1	0	0	236	37		.22	33.6	-0.007	.21	1044	.002	.04	6.00
3681	825	25.5	-34.4	890.0	1	318	9	233	40	0	.24	35.6	-0.011	.23	1122	.001	.02	6.01
4238	0	27.7	-33.1	873.0	1	0	0	227	47		.27	39.6	-0.011	.26	1292	.002	.04	6.06
4471	790	27.2	-33.4	866.0	1	318	18	225	50	0	.26	39.8	-0.006	.26	1363	.001	.02	6.07
4873	0	26.4	-33.9	854.0	1	0	0	223	55		.25	40.3	-0.006	.25	1485	.001	.03	6.11
5281	810	25.7	-34.3	842.0	1	310	18	220	60	0	.24	40.8	-0.006	.24	1610	.001	.03	6.14
5118	829	23.6	-35.6	818.0	1	306	20	215	70	0	.21	41.1	-0.006	.22	1862	.002	.06	6.19
6960	850	22.7	-36.1	794.0	1	294	18	209	80	0	.20	42.8	-0.007	.22	2121	.002	.05	6.25
7795	835	21.5	-36.8	771.0	1	281	19	204	90	0	.19	44.3	-0.006	.21	2376	.002	.05	6.30
8613	818	19.3	-38.1	749.0	1	267	20	200	100	0	.17	44.5	-0.005	.19	2625	.002	.04	6.34
9411	798	17.0	-39.5	728.0	1	261	19	196	110	0	.14	44.6	-0.005	.17	2868	.001	.04	6.38
10226	815	14.8	-40.9	707.0	1	251	21	191	120		.13	44.8	-0.005	.15	3117	.001	.03	6.41
11019	793	12.6	-42.2	687.0	1	281	15	187	130		.11	45.0	-0.005	.13	3359	.001	.03	6.44
11829	810	10.7	-43.4	667.0	1	246	13	183	140		.10	45.5	-0.005	.12	3605	.001	.03	6.46
12617	788	8.8	-44.5	648.0	1	235	12	179	150		.09	46.1	-0.005	.11	3846	.001	.02	6.49
13038	0	7.9	-45.0	638.0	1	0	0	177	155		.08	46.5	-0.005	.10	3974	.000	.01	6.50
13424	807	8.7	-44.6	629.0	1	226	8	174	160		.09	48.6	-0.008	.11	4092	.000	.01	6.51
13815	0	9.0	-44.4	620.0	1	0	0	171	165		.09	50.4	-0.007	.12	4211	.000	.01	6.52
14212	788	8.3	-44.8	611.0	1	150	1	169	170		.08	50.9	-0.005	.11	4332	.000	.01	6.53
15020	808	6.2	-46.1	593.0	1	110	3	165	180		.07	51.2	-0.005	.10	4578	.001	.02	6.55
15846	826	3.9	-47.5	575.0	1	29	5	161	190		.06	51.4	-0.005	.09	4830	.001	.02	6.56
16644	798	1.9	-48.8	558.0	1	34	7	158	200		.06	51.8	-0.005	.08	5073	.001	.01	6.58

A FTN 062 (PAUSE 33333)

[illegible] 03 11 20 1564 46

[illegible] PNA MCMURDO CALIF

[illegible] FALL ST 1979

[illegible] NONE

AGENCY NO 910

INTERMEDIATE OUTPUT VERSION NO 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	HI	MIN		AHS	PT	DNDZ	MIXING RATIO	H [illegible]	PWIN	PWMM	PWS M
445	0	23.4	14.1	998.3	56	210	6	329	00		11.79	23.5	0	10.21	136			
944	0	20.6	14.5	981.0	68	0	0	330	05		12.15	22.3	.001	10.64	288	.072	1.83	1.83
1440	995	19.1	14.4	964.0	74	202	6	327	10		12.13	22.2	-0.006	10.74	439	.079	1.85	3.68
1735	0	18.0	14.0	954.0	77	0	0	324	13		11.86	22.0	-0.010	10.54	529	.043	1.08	4.76
1962	0	17.8	14.5	947.0	81	0	0	325	16		12.32	22.4	.005	11.04	592	.030	.77	5.53
2092	0	17.8	12.7	942.0	72	0	0	316	18		10.93	22.8	-0.054	9.85	638	.021	.53	6.06
2241	801	18.0	10.6	937.0	62	272	2	306	20	0	9.48	23.5	-0.067	8.61	683	.018	.47	6.53
2362	0	19.1	5.2	933.0	40	0	0	286	22		6.57	24.9	-0.160	5.95	720	.012	.30	6.82
2468	0	20.9	-6.3	929.5	16	0	0	262	23		2.82	27.1	-0.231	2.66	752	.006	.15	6.98
2825	0	26.7	-1.7	918.0	15	0	0	260	28		3.90	34.2	-0.005	3.58	861	.014	.36	7.34
3014	773	27.0	-2.6	912.0	14	107	3	257	30		3.65	35.0	-0.017	3.42	919	.008	.21	7.55
3398	0	27.5	-14.8	900.0	5	0	0	240	35		1.40	36.7	-0.043	1.27	1036	.011	.29	7.84
3819	805	27.5	-14.8	887.0	5	325	14	237	40	0	1.40	38.0	-0.008	1.29	1164	.007	.17	8.01
4246	0	27.0	-15.0	874.0	5	0	0	234	45		1.37	38.8	-0.007	1.27	1294	.007	.17	8.18
4679	860	26.5	-15.3	861.0	5	326	20	231	50	0	1.34	39.6	-0.007	1.25	1426	.007	.17	8.35
5493	814	25.0	-16.1	837.0	5	319	21	225	60	0	1.27	40.6	-0.007	1.18	1674	.012	.30	8.64
6290	797	22.7	-14.7	814.0	7	311	23	222	70	0	1.43	40.6	-0.004	1.48	1917	.012	.31	8.95
7107	817	22.2	-12.8	791.0	9	308	24	218	80	0	1.67	42.7	-0.005	1.90	2166	.016	.39	9.35
7908	801	21.1	-15.7	769.0	7	290	27	211	90	0	1.33	44.0	-0.009	1.42	2410	.015	.37	9.72
8728	820	18.9	-15.6	747.0	8	276	26	206	100	0	1.34	44.3	-0.005	1.46	2660	.013	.32	10.04
9527	799	16.7	-14.2	726.0	11	261	23	203	110		1.52	44.5	-0.004	1.80	2904	.016	.35	10.39
10344	817	14.5	-14.1	705.0	12	250	22	199	120	0	1.55	44.7	-0.005	1.75	3153	.015	.38	10.77
11188	836	12.5	-14.1	684.0	14	239	21	195	130		1.56	45.3	-0.005	1.85	3408	.015	.38	11.15
12035	855	10.2	-15.9	663.0	14	234	20	190	140		1.35	45.6	-0.006	1.64	3668	.015	.37	11.52
12913	878	8.9	-16.8	642.0	14	207	22	184	150		1.26	47.0	-0.006	1.55	3936	.013	.34	11.86
13771	858	7.1	-21.0	622.0	11	194	18	178	160		.88	47.9	-0.008	1.11	4197	.011	.27	12.14
14650	879	5.2	-23.3	602.0	11	225	9	172	170		.73	48.6	-0.006	1.01	4465	.008	.22	12.35
15528	0	4.0	-24.1	587.0	11	0	0	169	177		.68	49.5	-0.006	.95	4671	.006	.15	12.51
15834	904	4.0	-24.1	582.0	11	265	4	167	180		.68	50.3	-0.006	.96	4741	.002	.05	12.55
16440	880	3.6	-39.9	563.0	2	345	10	159	190	0	.15	53.0	-0.009	.17	5011	.004	.11	12.66
17304	864	1.9	-45.3	545.0	1	360	15	154	200		.08	54.1	-0.005	.09	5276	.001	.02	12.68

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1300 18
STATION, PMAS MIRAMAR, CALIF.
2112Z 02 AUGUST 1979
FORCAST NO NONE
ASCENT NO 011
INTERMEDIATE OUTPUT VERSION NO 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	UNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	23.2	15.2	996.7	61	265	7	334	00		12.64	23.5	0	11.02	136			
724	0	20.1	13.3	987.0	65	0	0	327	03		11.29	21.2	-0.025	9.79	221	.040	1.03	1.03
1332	887	18.0	13.7	966.0	76	267	6	326	10	0	11.65	20.9	-0.002	10.27	406	.084	2.14	3.17
2039	0	16.0	14.1	942.0	89	0	0	324	18		12.06	21.0	-0.002	10.88	621	.101	2.58	5.74
2189	857	21.2	-6.1	937.0	15	215	4	264	20	0	2.84	26.7	-0.405	2.52	667	.013	.34	6.08
2372	0	24.6	-5.7	931.0	13	0	0	259	22		2.91	30.8	-0.023	2.70	723	.006	.16	6.24
2651	0	25.8	-9.0	922.0	9	0	0	252	25		2.24	32.8	-0.026	2.02	808	.009	.22	6.46
3060	871	25.8	-9.0	909.0	9	202	6	249	30	0	2.24	34.0	-0.008	2.05	933	.011	.27	6.73
3476	0	27.0	-21.3	896.0	3	0	0	236	35		.80	36.5	-0.030	.74	1059	.007	.18	6.91
3866	806	27.2	-21.2	884.0	3	303	8	233	40	0	.81	38.0	-0.008	.76	1178	.004	.09	7.00
4228	0	27.5	-25.3	873.0	2	0	0	229	45		.56	39.4	-0.012	.52	1289	.003	.07	7.08
4595	729	27.5	-25.3	862.0	2	306	17	226	50	0	.56	40.5	-0.008	.53	1401	.002	.06	7.14
4966	0	26.7	-18.4	851.0	4	0	0	226	55		1.03	40.9	.001	1.03	1514	.003	.08	7.22
5341	746	25.5	-14.8	840.0	6	310	22	226	60	0	1.41	40.8	.001	1.45	1628	.005	.14	7.36
6102	761	23.4	-11.1	818.0	9	302	23	225	70	0	1.91	41.0	-0.002	1.98	1860	.015	.38	7.74
6880	778	22.3	-18.4	796.0	5	300	22	215	80	0	1.05	42.2	-0.013	1.05	2097	.013	.34	8.08
7640	760	21.2	-14.4	775.0	8	295	25	213	90	0	1.48	43.5	-0.003	1.62	2329	.011	.29	8.37
8417	777	19.5	-12.3	754.0	11	292	27	210	100	0	1.76	44.1	-0.003	2.06	2565	.015	.39	8.76
9211	794	18.0	-10.5	733.0	13	278	29	207	110	0	2.04	45.1	-0.004	2.29	2808	.018	.46	9.23
10025	814	16.0	-12.1	712.0	13	268	29	202	120		1.82	45.5	-0.007	2.07	3056	.018	.46	9.69
10418	0	15.0	-11.8	702.0	14	0	0	200	125		1.86	45.6	-0.004	2.12	3175	.008	.21	9.90
10816	791	14.0	-12.9	692.0	14	256	25	197	130		1.71	45.9	-0.007	2.02	3297	.008	.21	10.11
11625	809	12.1	-14.3	672.0	14	239	25	192	140		1.53	46.4	-0.006	1.84	3543	.015	.39	10.51
12412	787	10.4	-14.8	653.0	15	226	24	188	150		1.49	47.1	-0.005	1.81	3783	.014	.35	10.86
13217	805	9.1	-18.9	634.0	12	233	18	181	160	0	1.06	48.4	-0.009	1.36	4029	.012	.31	11.16
14042	825	6.8	-22.1	615.0	11	251	13	175	170		.80	48.5	-0.006	1.10	4280	.009	.24	11.40
14841	799	5.4	-31.5	597.0	5	283	9	168	180	0	.34	49.7	-0.009	.47	4524	.006	.14	11.55
15661	820	4.4	-34.0	579.0	4	340	11	164	190		.26	51.3	-0.006	.36	4773	.003	.08	11.62
16505	844	3.9	-34.3	561.0	4	17	17	159	200	0	.26	53.7	-0.006	.36	5031	.003	.07	11.69

A FIN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1300:48
STATION, PNAS MIRAMAR, CALIF.,
1719Z 03 AUGUST 1979
FOR OP NO. NONE
ASCENT NO. 012
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWHM	PWSUM
445	0	15.8	15.5	996.0	98	0	0	346	00		13.19	16.1	0	11.19	136			
614	0	17.0	16.6	990.0	97	0	0	348	02		14.12	17.9	.014	12.04	187	.028	.71	.71
1273	828	15.0	14.9	967.0	100	317	2	337	10	0	12.81	17.8	-0.017	11.17	388	.107	2.71	3.42
1739	0	15.4	15.2	951.0	99	0	0	333	16		13.01	19.6	-0.008	11.54	530	.073	1.85	5.27
2067	794	21.8	8.3	940.0	42	37	2	294	20	0	8.05	27.1	-0.119	7.35	630	.042	1.06	6.32
2250	0	22.9	-18.7	934.0	5	0	0	251	22		1.02	28.8	-0.238	.93	686	.010	.25	6.57
2933	866	26.5	-33.8	912.0	1	294	6	238	30	0	.25	34.5	-0.019	.24	894	.005	.13	6.70
3379	0	26.2	-34.0	898.0	1	0	0	234	35		.25	35.6	-0.008	.24	1030	.001	.03	6.74
3799	866	26.0	-34.1	885.0	1	310	16	231	40	0	.24	36.6	-0.008	.24	1158	.001	.03	6.77
4225	0	25.5	-34.4	872.0	1	0	0	228	45		.24	37.5	-0.007	.23	1288	.001	.03	6.80
4656	857	25.3	-34.6	859.0	1	305	18	225	50	0	.23	38.5	-0.007	.23	1419	.001	.03	6.83
5060	0	25.0	-34.7	847.0	1	0	0	222	55		.23	39.5	-0.007	.23	1542	.001	.03	6.86
5469	813	24.1	-35.3	835.0	1	304	22	219	60	0	.22	39.8	-0.006	.22	1667	.001	.03	6.89
5883	0	23.2	-35.8	823.0	1	0	0	217	65		.21	40.1	-0.006	.22	1793	.001	.03	6.91
6301	832	22.2	-36.4	811.0	1	302	24	214	70	0	.20	40.5	-0.006	.21	1921	.001	.03	6.94
7154	853	21.6	-36.8	787.0	1	296	22	208	80	0	.19	42.5	-0.007	.20	2181	.002	.05	6.99
7994	840	19.8	-37.8	764.0	1	296	24	203	90	0	.17	43.2	-0.006	.19	2437	.002	.05	7.04
8853	859	18.1	-38.9	741.0	1	297	22	198	100	0	.15	44.1	-0.006	.17	2698	.002	.04	7.08
9696	843	16.4	-39.9	719.0	1	300	16	194	110		.14	45.0	-0.006	.16	2955	.001	.04	7.12
10560	864	14.4	-41.1	697.0	1	300	15	189	120	0	.12	45.6	-0.005	.15	3219	.001	.03	7.15
11445	885	12.4	-42.3	675.0	1	311	16	184	130		.11	46.4	-0.005	.13	3488	.001	.03	7.18
12311	866	10.5	-43.5	654.0	1	313	14	179	140		.10	47.1	-0.005	.12	3752	.001	.03	7.21
13199	888	8.1	-44.9	633.0	1	319	12	175	150		.08	47.4	-0.005	.11	4023	.001	.02	7.23
14068	869	7.6	-45.3	613.0	1	3	9	170	160		.08	49.7	-0.006	.11	4288	.001	.02	7.25
14918	850	6.5	-45.9	594.0	1	30	16	165	170		.08	51.4	-0.005	.10	4547	.001	.02	7.27
15791	873	4.4	-47.2	575.0	1	34	20	161	180		.07	52.0	-0.005	.09	4813	.001	.02	7.29
16687	896	2.7	-48.3	556.0	1	36	24	157	190	0	.06	53.1	-0.005	.08	5086	.001	.02	7.31
17558	871	.7	-49.5	538.0	1	42	24	153	200		.05	53.9	-0.005	.07	5352	.001	.01	7.32

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS 1) 03/11/80 1301:18
STATION, PNAS MIRAMAR CALIF.
0513Z 03 AUGUST 1979
FOR OP. NO. NONE
ASCENT NO. 013
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMB	PWSUM
445	0	17.7	15.0	995.6	84	170	3	340	00		12.68	18.1	C	10.82	136			
1003	0	16.0	14.9	976.0	93	0	0	337	05		12.67	18.1	-0.006	10.97	306	.085	2.17	2.17
1523	1078	14.4	13.8	958.0	96	150	3	329	10	0	11.88	18.0	-0.015	10.40	464	.077	1.95	4.12
2020	0	13.2	12.6	941.0	96	0	0	321	15		11.02	18.3	-0.017	9.78	616	.069	1.74	5.87
2138	0	12.2	11.6	937.0	96	0	0	317	16		10.36	17.6	-0.034	9.19	652	.015	.39	6.25
2227	0	12.6	-42.2	934.0	1	0	0	254	17		.11	18.3	-0.710	.10	679	.006	.14	6.39
2497	974	22.1	-36.4	925.0	1	213	5	244	20		.20	28.8	-0.037	.18	761	.000	.01	6.41
2776	0	24.7	-34.9	916.0	1	0	0	240	23		.23	32.3	-0.015	.21	846	.001	.02	6.42
3409	912	24.5	-35.0	896.0	1	254	6	235	30	0	.22	34.0	-0.008	.21	1039	.002	.04	6.47
3828	0	24.5	-35.0	883.0	1	0	0	232	35		.22	35.3	-0.008	.22	1167	.001	.03	6.50
4253	844	24.5	-35.0	870.0	1	294	8	228	40	0	.22	36.6	-0.008	.22	1296	.001	.03	6.52
4684	0	24.5	-35.0	857.0	1	0	0	225	45		.22	37.9	-0.008	.22	1428	.001	.03	6.55
5088	835	24.5	-35.0	845.0	1	297	16	222	50	0	.22	39.2	-0.008	.23	1551	.001	.03	6.58
5532	0	24.0	-35.3	832.0	1	0	0	219	55		.22	40.1	-0.007	.22	1686	.001	.03	6.61
5947	859	23.3	-35.7	820.0	1	293	23	216	60	0	.21	40.6	-0.006	.22	1813	.001	.03	6.64
6864	917	21.7	-36.7	794.0	1	299	18	210	70	0	.19	41.8	-0.006	.20	2092	.002	.06	6.69
7732	868	19.9	-37.8	770.0	1	296	18	205	80	0	.17	42.6	-0.006	.19	2357	.002	.05	6.74
8623	891	18.2	-38.8	746.0	1	290	15	200	90	0	.16	43.6	-0.006	.17	2628	.002	.04	6.79
9537	914	16.3	-40.0	722.0	1	252	3	194	100	0	.14	44.5	-0.006	.16	2907	.002	.04	6.83
10437	900	14.4	-41.1	699.0	1	140	7	189	110	0	.12	45.4	-0.006	.15	3181	.001	.04	6.86
11359	922	11.7	-42.8	676.0	1	118	11	185	120		.10	45.4	-0.005	.13	3462	.001	.03	6.89
12262	903	9.0	-44.4	654.0	1	111	12	180	130		.09	45.5	-0.005	.11	3737	.001	.03	6.92
13188	926	6.5	-45.9	632.0	1	108	12	176	140		.08	45.7	-0.005	.10	4020	.001	.02	6.94
14095	907	4.2	-47.3	611.0	1	126	11	171	150		.06	46.2	-0.005	.08	4296	.001	.02	6.96
15026	931	1.9	-48.8	590.0	1	116	10	167	160	0	.06	46.6	-0.005	.07	4580	.001	.02	6.98
15942	916	3.5	-47.8	570.0	1	65	10	160	170	0	.06	51.8	-0.007	.09	4859	.001	.02	6.99
16892	950	1.9	-48.8	550.0	1	76	6	156	180		.06	53.1	-0.005	.08	5149	.001	.02	7.01
17821	929	.2	-49.8	531.0	1	61	11	151	190		.05	54.5	-0.005	.07	5432	.001	.01	7.03
18726	905	-1.4	-50.8	513.0	1	59	16	147	200		.04	55.7	-0.005	.07	5708	.001	.01	7.04

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1301:47
STATION: PNAS MIRAMAR, CALIF.
17182 03 AUGUST 1979
FOR OP NO NONE
ASCENT NO 014
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	25.0	16.0	996.6	57	270	4	335	00		13.24	25.3	0	11.48	136			
1015	0	21.0	13.5	977.0	62	0	0	324	05		11.38	22.9	-0.020	9.98	309	.084	2.14	2.14
1512	1067	18.2	11.8	960.0	66	318	4	316	10	0	10.29	21.6	-0.016	9.07	461	.065	1.64	3.78
2014	0	17.0	12.0	943.0	72	0	0	314	15		10.45	21.9	-0.004	9.34	614	.063	1.59	5.37
2314	0	18.2	5.9	933.0	44	0	0	289	18		6.92	24.0	-0.083	6.19	705	.031	.79	6.16
2496	984	22.5	-8.6	927.0	12	253	2	257	20	0	2.34	29.0	-0.177	2.20	761	.010	.26	6.42
2932	0	25.0	-18.7	913.0	4	0	0	243	25		1.02	32.9	-0.031	.86	894	.009	.22	6.64
3375	879	24.8	-23.8	899.0	3	196	3	238	30	0	.65	34.0	-0.013	.65	1029	.004	.11	6.74
3794	0	26.0	-23.4	886.0	3	0	0	234	35		.67	36.5	-0.010	.71	1156	.004	.09	6.83
4186	811	26.0	-23.4	874.0	3	252	5	231	40	0	.67	37.7	-0.008	.72	1276	.003	.09	6.92
4585	0	26.2	-23.3	862.0	3	0	0	227	45		.67	39.2	-0.008	.74	1398	.003	.09	7.01
4954	768	25.0	-23.7	851.0	3	281	10	225	50	0	.65	39.1	-0.006	.70	1510	.003	.08	7.09
5327	0	24.3	-23.9	840.0	3	0	0	223	55		.64	39.5	-0.006	.68	1624	.003	.08	7.17
5739	785	24.1	-24.0	828.0	3	280	11	220	60	0	.64	40.6	-0.007	.68	1749	.003	.08	7.25
6544	805	23.0	-24.4	805.0	3	282	13	215	70	0	.62	41.9	-0.007	.65	1995	.006	.16	7.40
7368	824	21.0	-25.1	782.0	3	281	13	210	80	0	.58	42.4	-0.006	.59	2246	.006	.15	7.55
8173	805	18.8	-25.9	760.0	3	281	13	205	90	0	.55	42.7	-0.006	.53	2491	.005	.13	7.67
9035	862	16.8	-26.8	737.0	4	272	11	200	100	0	.51	43.2	-0.006	.65	2754	.005	.14	7.81
9878	843	14.8	-27.6	715.0	4	248	11	196	110	0	.47	43.8	-0.006	.59	3011	.005	.14	7.95
10742	864	12.8	-28.5	693.0	4	225	10	191	120		.44	44.4	-0.006	.53	3274	.005	.12	8.08
11628	886	10.9	-29.4	671.0	4	194	8	186	130		.41	45.3	-0.006	.48	3544	.004	.11	8.19
12453	825	8.9	-30.3	651.0	4	184	9	181	140		.37	45.8	-0.005	.44	3796	.004	.09	8.28
13295	802	7.2	-28.2	632.0	6	188	10	178	150		.46	46.5	-0.004	.60	4040	.004	.10	8.38
14033	778	5.1	-27.1	614.0	8	182	8	174	160		.51	46.7	-0.004	.71	4277	.005	.12	8.50
14828	795	3.4	-27.0	596.0	9	173	9	170	170		.52	47.5	-0.005	.73	4520	.005	.13	8.63
15324	0	2.7	-27.4	585.0	9	0	0	168	177		.50	48.4	-0.006	.71	4671	.003	.08	8.72
15644	816	2.7	-35.9	578.0	4	162	14	164	180		.22	49.5	-0.012	.32	4768	.001	.04	8.75
16436	792	1.7	-36.4	561.0	4	146	14	160	190		.21	51.1	-0.005	.31	5010	.002	.05	8.81
17253	817	2.4	-36.1	544.0	4	138	11	155	200	0	.22	54.8	-0.006	.33	5259	.002	.06	8.86

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1302:17
STATION, PNAS MIRAMAR, CALIF.
2316Z 03 AUGUST 1979
FOR OP. NO. NONE
ASCENT NO. 015
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	23.5	14.0	995.8	55	235	8	328	00		11.66	23.9	0	10.11	136			
844	0	21.5	13.8	982.0	62	0	0	326	05		11.64	23.0	-0.004	10.24	257	.056	1.43	1.43
1223	778	19.7	13.1	969.0	66	274	3	322	10	0	11.17	22.4	-0.011	9.88	373	.052	1.33	2.76
1635	0	18.4	12.9	955.0	70	0	0	319	15		11.09	22.3	-0.007	9.80	498	.055	1.40	4.16
2020	797	16.9	12.4	942.0	74	306	1	315	20	0	10.73	22.0	-0.010	9.56	616	.050	1.28	5.43
2200	0	17.6	11.1	936.0	66	0	0	308	23		9.85	23.1	-0.042	8.96	671	.022	.56	6.00
2535	0	24.0	-7.9	925.0	11	0	0	256	27		2.47	30.7	-0.156	2.22	773	.025	.62	6.62
2816	796	24.7	-7.4	916.0	11	160	4	253	30		2.56	32.3	-0.009	2.33	858	.008	.21	6.83
3226	0	25.2	-8.2	903.0	10	0	0	249	35		2.39	34.0	-0.011	2.22	983	.012	.30	7.13
3643	827	25.2	-8.2	890.0	10	194	2	245	40	0	2.39	35.3	-0.008	2.25	1110	.012	.29	7.43
4034	0	25.2	-8.2	878.0	10	0	0	242	45		2.39	36.5	-0.008	2.28	1230	.011	.28	7.70
4396	753	25.2	-8.2	867.0	10	300	2	239	50	0	2.39	37.6	-0.008	2.31	1340	.010	.26	7.96
4763	0	25.2	-8.2	856.0	10	0	0	236	55		2.39	38.8	-0.008	2.34	1452	.010	.26	8.22
5169	773	24.7	-8.5	844.0	10	310	6	233	60	0	2.34	39.5	-0.008	2.30	1576	.011	.28	8.50
5925	756	23.3	-9.5	822.0	10	303	10	228	70	0	2.18	40.4	-0.007	2.17	1806	.020	.50	9.00
6699	774	22.4	-10.1	800.0	10	313	12	222	80	0	2.08	41.9	-0.007	2.11	2042	.019	.48	9.48
7491	792	20.6	-9.3	778.0	12	299	16	219	90	0	2.23	42.5	-0.004	2.34	2283	.020	.50	9.98
8263	772	18.4	-9.2	757.0	14	298	17	215	100	0	2.27	42.6	-0.005	2.44	2519	.020	.51	10.49
9052	789	16.3	-10.0	736.0	15	296	19	210	110	0	2.14	42.8	-0.006	2.36	2759	.020	.51	11.00
9818	766	14.3	-13.8	716.0	13	294	21	203	120	0	1.58	43.1	-0.009	1.85	2993	.017	.43	11.43
10600	782	12.3	-16.1	696.0	12	291	12	197	130		1.32	43.5	-0.007	1.54	3231	.014	.34	11.77
11401	801	11.2	-17.9	676.0	11	277	9	191	140		1.14	44.9	-0.007	1.35	3475	.012	.29	12.07
12222	821	9.7	-18.9	656.0	11	281	7	186	150		1.05	45.9	-0.006	1.26	3725	.010	.26	12.33
13063	841	8.0	-19.2	636.0	12	238	9	182	160		1.03	46.9	-0.005	1.26	3982	.010	.26	12.59
13883	820	6.1	-18.8	617.0	15	213	19	178	170		1.07	47.4	-0.005	1.43	4232	.010	.26	12.85
14722	839	4.0	-15.4	598.0	23	203	21	176	180		1.45	47.9	-0.002	1.95	4487	.013	.33	13.17
15126	0	2.5	-13.3	589.0	30	0	0	177	185		1.73	47.5	0	2.33	4610	.008	.20	13.37
15535	813	1.7	-17.6	580.0	22	191	25	171	190		1.20	48.0	-0.013	1.63	4735	.007	.18	13.55
16367	832	-0.1	-21.0	562.0	19	186	18	165	200		.90	48.8	-0.007	1.28	4989	.010	.27	13.82

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1303:21
STATION, PNAS MIRAMAR, CALIF.
0650Z 04 AUGUST 1979
FOR OP. NO. NONE
ASCENT NO. 016
INTERMEDIATE OUTPUT VERSION NO. 45

HI(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	ONDZ	MIX(G/KG)	H(M)	PWIN	PWNM	PWSUM
445	0	15.1	15.0	995.9	100	320	3	345	00		12.86	15.4	0	10.91	136			
724	0	14.7	14.6	986.0	100	0	0	341	03		12.59	15.9	-0.014	10.74	221	.043	1.09	1.09
1323	878	13.9	13.8	965.0	100	339	7	332	10	0	11.98	16.8	-0.014	10.41	403	.089	2.25	3.34
1790	0	17.6	14.6	949.0	82	0	0	326	15		12.36	22.0	-0.013	11.01	546	.069	1.74	5.09
1970	0	20.5	14.4	943.0	68	0	0	320	17		12.14	25.4	-0.034	11.01	600	.026	.67	5.76
2243	920	21.8	13.1	934.0	57	70	2	310	20		11.05	27.7	-0.037	10.08	684	.038	.96	6.72
2427	0	22.1	11.0	928.0	50	0	0	300	22		9.66	28.5	-0.054	9.05	740	.023	.58	7.30
2706	0	24.9	-9.2	919.0	10	0	0	252	25		2.21	32.2	-0.172	2.14	825	.020	.51	7.82
3180	937	25.9	-8.5	904.0	10	263	2	248	30	0	2.32	34.7	-0.009	2.31	969	.013	.34	8.15
3629	0	25.9	-8.5	890.0	10	0	0	244	35		2.32	36.0	-0.008	2.34	1106	.013	.33	8.49
4086	906	25.7	-8.7	876.0	10	294	6	241	40	0	2.29	37.2	-0.008	2.35	1245	.013	.33	8.82
4517	0	25.7	-8.7	863.0	10	0	0	237	45		2.29	38.5	-0.008	2.39	1377	.012	.31	9.13
4953	867	24.9	-6.3	850.0	12	291	9	237	50	0	2.77	39.1	0	2.78	1510	.013	.34	9.47
5430	0	24.2	-3.8	836.0	15	0	0	238	55		3.37	39.8	.001	3.39	1655	.017	.44	9.91
5878	925	22.5	-1.7	823.0	20	290	15	239	60	0	3.96	39.5	.003	4.15	1792	.020	.50	10.41
6826	948	20.2	-3.0	796.0	21	283	15	232	70	0	3.61	40.0	-0.008	3.91	2081	.044	1.11	11.52
7762	936	17.6	-4.7	770.0	21	283	15	224	80	0	3.21	40.2	-0.008	3.43	2366	.038	.97	12.49
8646	884	14.7	-5.7	746.0	24	283	14	219	90	0	3.00	39.8	-0.006	3.37	2635	.033	.83	13.32
9588	942	11.9	-5.3	721.0	29	277	15	215	100		3.12	39.8	-0.004	3.51	2922	.034	.87	14.19
9779	0	11.5	-5.4	716.0	30	0	0	214	102		3.11	40.0	-0.006	3.56	2981	.007	.18	14.37
10517	929	11.3	-14.9	697.0	14	266	10	199	110	0	1.46	42.2	-0.020	1.68	3206	.020	.51	14.87
11394	877	9.8	-17.2	675.0	13	201	9	192	120		1.21	43.4	-0.007	1.46	3473	.014	.35	15.22
12295	901	8.1	-17.3	653.0	14	221	13	188	130		1.21	44.6	-0.005	1.44	3748	.013	.32	15.55
13222	927	6.5	-19.7	631.0	13	210	12	181	140	0	.99	45.8	-0.007	1.24	4030	.012	.30	15.85
14130	908	4.2	-17.5	610.0	19	197	13	178	150		1.20	46.3	-0.003	1.60	4307	.012	.30	16.15
15018	888	1.7	-14.4	590.0	29	181	16	176	160		1.58	46.4	-0.002	2.12	4577	.015	.38	16.53
15882	864	-0.8	-14.9	571.0	33	166	21	172	170		1.53	46.5	-0.005	2.08	4841	.016	.41	16.93
16719	837	-3.7	-15.4	553.0	39	150	23	169	180		1.48	46.1	-0.004	2.05	5096	.015	.38	17.31
17576	857	-5.8	-15.4	535.0	46	148	25	165	190	0	1.49	46.5	-0.004	2.13	5357	.015	.38	17.69
18504	928	-8.5	-16.1	516.0	54	142	27	161	200		1.43	46.6	-0.005	2.10	5640	.016	.41	18.10

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1313:15
STATION, PNAS MIRAMAR, CALIF.
1120Z 04 AUGUST 1979
FOR OP. NO. NONE
ASCENT NO. 017
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	16.0	15.9	995.8	100	320	2	348	00		13.65	16.4	0	11.57	136			
977	0	14.6	14.5	977.0	100	0	0	338	08		12.52	16.5	-0.019	10.77	298	.084	2.13	2.13
1121	676	15.6	15.5	972.0	100	0	0	340	10	0	13.31	18.0	.015	11.56	342	.022	.57	2.70
1470	0	19.0	14.6	960.0	76	0	0	328	15		12.36	22.4	-0.036	11.02	448	.054	1.38	4.08
1678	0	21.0	12.6	953.0	59	0	0	314	18		10.77	25.1	-0.064	9.73	511	.029	.74	4.81
1827	706	21.0	12.2	948.0	57	0	0	311	20		10.46	25.5	-0.021	9.44	557	.019	.49	5.30
2069	0	23.7	-35.5	940.0	1	0	0	247	23		.21	29.0	-0.266	.19	631	.015	.39	5.69
2376	0	25.7	-34.3	930.0	1	0	0	243	27		.24	31.9	-0.013	.22	724	.001	.02	5.71
2624	797	25.9	-34.2	922.0	1	0	0	241	30		.24	32.9	-0.009	.23	800	.001	.02	5.73
3066	0	27.1	-33.4	908.0	1	0	0	236	35		.26	35.6	-0.010	.25	935	.001	.03	5.77
3483	859	27.6	-33.1	895.0	1	0	0	232	40	0	.27	37.3	-0.009	.26	1062	.001	.03	5.80
3906	0	27.4	-33.3	882.0	1	0	0	229	45		.26	38.4	-0.008	.26	1191	.001	.03	5.83
4302	819	27.1	-33.4	870.0	1	0	0	226	50	0	.26	39.3	-0.007	.26	1311	.001	.03	5.86
4703	0	25.9	-29.6	858.0	2	0	0	225	55		.38	39.3	-0.004	.49	1433	.002	.05	5.91
5108	806	24.9	-16.4	846.0	5	0	0	227	60	0	1.23	39.5	.006	1.16	1557	.004	.10	6.01
5896	788	22.6	-16.8	823.0	6	0	0	223	70	0	1.20	39.5	-0.006	1.25	1797	.011	.28	6.29
6736	840	20.1	-14.7	799.0	8	0	0	220	80	0	1.44	39.5	-0.004	1.47	2053	.013	.33	6.62
7558	822	17.7	-13.7	776.0	10	0	0	216	90	0	1.58	39.6	-0.004	1.63	2304	.014	.36	6.98
8398	840	15.8	-33.7	753.0	2	0	0	204	100	0	.26	40.2	-0.015	.30	2560	.009	.22	7.21
9259	861	14.2	-41.2	730.0	1	0	0	198	110	0	.12	41.3	-0.007	.14	2822	.002	.05	7.26
10103	844	12.8	-42.1	708.0	1	0	0	193	120		.11	42.5	-0.006	.13	3079	.001	.03	7.29
10534	0	12.4	-42.3	697.0	1	0	0	190	125		.11	43.5	-0.006	.13	3211	.001	.01	7.30
10971	868	11.6	-42.8	686.0	1	0	0	188	130		.10	44.1	-0.006	.12	3344	.001	.01	7.32
11822	851	9.9	-19.2	665.0	11	0	0	188	140		1.02	45.0	.001	1.26	3603	.006	.15	7.47
12694	872	8.1	-18.4	644.0	13	0	0	184	150	0	1.11	45.8	-0.005	1.36	3869	.011	.28	7.74
13546	852	5.4	-18.5	624.0	16	0	0	181	160		1.11	45.6	-0.004	1.43	4129	.011	.28	8.03
14416	870	2.8	-18.4	604.0	19	0	0	177	170		1.12	45.6	-0.004	1.47	4394	.012	.29	8.32
15263	847	.2	-16.1	585.0	28	0	0	175	180	0	1.38	45.5	-0.002	1.85	4652	.013	.32	8.64
16129	866	-2.8	-10.2	566.0	57	0	0	177	190		2.25	44.9	.002	3.13	4916	.019	.48	9.12
16593	0	-3.6	-10.4	556.0	59	0	0	174	195		2.23	45.6	-0.005	3.11	5058	.012	.32	9.44
16828	0	-3.8	-16.8	551.0	35	0	0	167	198		1.32	46.3	-0.031	1.83	5129	.005	.13	9.57
17017	888	-4.4	-16.5	547.0	38	0	0	167	200		1.36	46.2	-0.003	1.91	5187	.003	.08	9.64

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS 1) 03/11/80 1314:44
MISSION: PT. MUGU, CALIF.
DATE: 24 AUGUST 1979
SHIP NO.: NONE
AGENCY: NSWC
INTERPOLATED OUTPUT VERSION NO. 45

HGT	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(MT	PWIN	PWHH	PWSUM
445	0	21.0	14.5	997.6	66	270	3	334	00		12.15	21.2	0	10.41	136			
864	0	19.7	15.6	983.0	77	0	0	337	05		13.12	21.1	.008	11.39	263	.064	1.62	1.62
1270	825	18.2	15.3	969.0	83	282	4	334	10	0	12.89	20.8	-0.008	11.34	387	.064	1.62	3.23
1857	0	16.8	15.1	949.0	90	0	0	330	17		12.81	21.1	-0.007	11.50	566	.091	2.32	5.55
1916	0	17.0	13.7	947.0	81	0	0	322	18		11.68	21.5	-0.126	10.49	584	.009	.22	5.78
2096	826	23.9	-1.3	941.0	19	230	3	269	20		4.04	29.1	-0.295	3.75	639	.017	.43	6.21
2188	0	26.2	-10.8	938.0	8	0	0	254	21		1.94	31.8	-0.162	1.81	667	.003	.08	6.30
2529	0	28.4	-32.7	927.0	1	0	0	240	25		.28	35.0	-0.041	.26	771	.005	.12	6.41
2971	875	27.7	-33.1	913.0	1	142	7	237	30	0	.27	35.6	-0.007	.25	906	.001	.04	6.45
3417	0	27.0	-33.6	899.0	1	0	0	234	35		.26	36.2	-0.007	.25	1041	.001	.04	6.48
3871	900	27.7	-33.1	885.0	1	12	5	230	40	0	.27	38.4	-0.009	.26	1180	.001	.04	6.52
4333	0	27.0	-20.4	871.0	3	0	0	230	45		.87	39.0	.001	.76	1321	.003	.07	6.59
4806	929	26.5	-17.9	857.0	4	318	14	228	50	0	1.08	40.0	-0.004	1.01	1463	.005	.13	6.72
5291	0	25.0	-4.4	844.0	14	0	0	238	55		3.20	39.9	.022	3.29	1597	.011	.28	7.00
5686	886	23.9	-4.3	831.0	15	329	12	236	60	0	3.25	40.0	-0.005	3.35	1733	.017	.44	7.44
6594	908	21.9	-6.8	805.0	14	312	12	227	70	0	2.70	40.7	-0.009	2.86	2010	.032	.82	8.26
7418	822	20.5	-19.8	782.0	5	311	14	212	80	0	.94	41.9	-0.019	.96	2260	.018	.45	8.71
8294	878	17.8	-18.1	758.0	7	301	13	209	90	0	1.09	41.8	-0.004	1.17	2528	.010	.26	8.97
9191	897	15.0	-18.1	734.0	9	308	17	204	100	0	1.10	41.6	-0.005	1.30	2801	.012	.30	9.27
10072	881	12.6	-18.6	711.0	10	309	13	199	110	0	1.06	41.9	-0.005	1.28	3070	.012	.30	9.57
10974	902	10.9	-23.8	688.0	7	293	15	192	120		.68	43.0	-0.008	.83	3345	.010	.25	9.82
11862	888	9.8	-21.5	666.0	9	275	16	188	130		.83	44.7	-0.005	1.02	3616	.008	.21	10.02
12776	914	8.2	-17.7	644.0	14	229	16	185	140	0	1.17	45.9	-0.003	1.47	3894	.011	.28	10.30
13714	938	5.6	-10.5	622.0	30	218	17	186	150		2.14	46.1	.002	2.74	4180	.019	.47	10.77
14678	964	2.9	-10.1	600.0	38	206	18	183	160		2.23	46.3	-0.004	2.98	4474	.025	.64	11.41
15080	0	1.9	-10.4	591.0	40	0	0	180	164		2.18	46.5	-0.005	2.96	4596	.011	.27	11.68
15623	965	.7	-14.7	579.0	30	185	17	174	170		1.55	47.1	-0.012	2.08	4762	.012	.31	11.99
16083	0	-0.4	-20.1	569.0	21	0	0	168	175		.98	47.3	-0.012	1.37	4902	.007	.17	12.17
16549	925	-1.3	-21.2	559.0	20	161	22	165	180		.90	47.8	-0.006	1.24	5044	.005	.13	12.30
17451	903	-3.5	-21.3	540.0	24	163	24	161	190		.89	48.4	-0.005	1.31	5319	.010	.25	12.54
18328	877	-6.1	-22.9	522.0	25	158	28	157	200		.78	48.5	-0.005	1.16	5586	.009	.23	12.77

A FIN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS 1) 03/11/80 1315.19
STATION, PNAS MIRAMAR, CALIF.
0001Z 05 AUGUST 1979
FOR OP NO. NONE
ASCENT NO. 019
INTERMEDIATE OUTPUT VERSION NO. 45

M(FT)	MT	DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445		0	23.9	15.6	995.6	60	275	6	335	00		12.96	24.3	0	11.32	136			
868		0	20.8	14.8	981.0	69	0	0	331	05		12.43	22.4	-0.008	10.94	265	.065	1.65	1.65
1042		0	20.2	14.9	975.0	72	0	0	331	07		12.51	22.3	-0.002	11.07	318	.026	.67	2.32
1305		860	20.2	14.0	966.0	68	309	7	325	10		11.85	23.1	-0.024	10.54	398	.039	.99	3.31
1394		0	20.8	13.6	963.0	63	0	0	321	11		11.50	24.0	-0.040	10.16	425	.012	.32	3.63
1542		0	23.5	-4.1	958.0	16	0	0	270	13		3.29	27.1	-0.348	3.02	470	.013	.33	3.96
1964		0	23.9	-2.2	944.0	18	0	0	269	18		3.80	28.8	-0.003	3.54	599	.018	.47	4.43
2116		811	24.6	-3.6	939.0	15	311	5	264	20		3.40	30.0	-0.028	3.09	645	.007	.17	4.60
2518		0	27.9	-7.1	926.0	10	0	0	253	25		2.58	34.6	-0.027	2.54	767	.015	.37	4.97
2928		812	28.4	-6.8	913.0	9	313	6	250	30	0	2.64	36.4	-0.008	2.38	892	.013	.32	5.29
3345		0	28.4	-5.2	900.0	11	0	0	249	35		2.98	37.6	-0.003	2.96	1020	.014	.35	5.64
3768		840	27.7	-1.3	887.0	15	317	10	252	40	0	3.99	38.2	.007	3.93	1148	.018	.45	6.10
4629		861	26.2	1.3	861.0	20	324	11	251	50	0	4.86	39.3	-0.001	4.95	1411	.046	1.17	7.27
5478		849	24.6	-3.0	836.0	16	325	11	238	60	0	3.57	40.2	-0.015	3.71	1670	.043	1.10	8.37
6312		834	23.0	-7.3	812.0	13	323	13	228	70	0	2.59	41.2	-0.013	2.81	1924	.031	.79	9.17
7130		818	21.0	-8.7	789.0	13	323	12	222	80	0	2.33	41.6	-0.007	2.56	2173	.025	.63	9.80
7965		835	18.7	-9.4	766.0	14	332	12	217	90	0	2.23	41.8	-0.006	2.46	2428	.023	.59	10.38
8819		854	16.4	-10.7	743.0	14	338	13	211	100	0	2.02	42.1	-0.007	2.19	2688	.021	.54	10.93
9655		836	14.1	-11.9	721.0	15	339	16	206	110	0	1.85	42.2	-0.006	2.09	2943	.019	.48	11.40
10471		816	12.1	-12.6	700.0	16	332	14	201	120	0	1.76	42.8	-0.006	2.01	3192	.017	.44	11.84
11305		834	10.1	-15.8	679.0	14	314	14	194	130		1.37	43.3	-0.008	1.59	3446	.015	.38	12.23
12162		857	9.6	-15.7	658.0	15	299	12	189	140		1.38	45.5	-0.006	1.70	3707	.014	.35	12.58
13081		839	7.4	-12.5	638.0	23	295	9	188	150	0	1.81	45.9	-0.002	2.32	3963	.016	.41	12.99
13859		858	5.0	-10.8	618.0	31	222	7	185	160		2.09	46.0	-0.003	2.73	4224	.020	.51	13.50
14693		834	2.7	-9.6	599.0	40	206	6	183	170	0	2.31	46.2	-0.003	3.10	4478	.022	.56	14.06
15548		855	.4	-7.3	580.0	56	193	10	182	180		2.80	46.5	-0.001	3.80	4739	.026	.67	14.73
16006		0	-0.9	-5.2	570.0	72	0	0	183	186		3.30	46.6	.002	4.53	4879	.017	.42	15.15
16378		830	-1.5	-7.9	562.0	62	171	15	178	190		2.69	47.1	-0.015	3.78	4992	.013	.34	15.49
16585		0	-1.8	-10.0	558.0	53	0	0	174	193		2.28	47.4	-0.019	3.18	5049	.006	.14	15.63
17229		851	-3.2	-10.1	544.0	59	170	16	171	200		2.28	48.1	-0.005	3.27	5251	.018	.46	16.09

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1315:58
STATION, PNAS MIRAMAR, CALIF.
0510Z 05 AUGUST 1979
FOR OP. NO. NONE
ASCENT NO. 020
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	17.8	17.4	997.2	98	215	2	353	00		14.82	18.0	0	12.72	136			
678	0	17.5	17.4	989.0	100	0	0	352	03		14.95	18.5	-0.005	12.84	207	.042	1.06	1.06
964	0	17.1	17.0	979.0	100	0	0	348	07		14.58	18.9	-0.015	12.64	294	.051	1.29	2.36
1195	750	17.8	17.4	971.0	98	255	4	346	10	0	14.78	20.2	-0.007	13.07	364	.041	1.04	3.40
1361	0	18.8	16.8	966.0	88	0	0	340	12		14.19	21.7	-0.042	12.55	409	.026	.65	4.05
1577	0	20.1	14.1	958.0	68	0	0	323	15		11.91	23.7	-0.072	10.57	481	.037	.94	4.99
1936	741	23.0	2.0	946.0	25	166	5	278	20	0	5.15	27.8	-0.127	4.65	590	.037	.93	5.92
2313	0	26.4	-9.7	933.0	9	0	0	254	25		2.12	32.4	-0.060	2.07	711	.017	.44	6.37
2707	771	27.8	-33.0	921.0	1	328	9	239	30	0	.27	35.0	-0.040	.25	825	.006	.14	6.51
3087	0	27.3	-33.3	909.0	1	0	0	236	35		.26	35.7	-0.007	.25	941	.001	.03	6.54
3543	796	26.8	-18.0	896.0	4	321	12	238	40	0	1.07	36.4	.004	.98	1068	.003	.08	6.62
3892	0	25.4	-0.8	884.0	18	0	0	254	45		4.17	36.1	.041	4.14	1186	.012	.31	6.93
4286	783	25.4	.5	872.0	20	311	16	253	50	0	4.61	37.3	-0.002	4.66	1306	.021	.54	7.47
5055	769	24.4	-1.8	849.0	17	314	14	244	60	0	3.89	38.7	-0.012	3.83	1541	.039	.99	8.46
5877	822	24.2	-13.7	825.0	7	322	18	224	70	0	1.54	41.0	-0.024	1.60	1791	.026	.66	9.12
6684	807	22.3	-15.6	802.0	7	339	14	218	80	0	1.33	41.6	-0.007	1.47	2037	.014	.36	9.48
7474	790	20.3	-11.2	780.0	11	341	13	217	90	0	1.92	41.9	-0.001	2.10	2278	.016	.40	9.88
8317	843	18.0	-10.6	757.0	13	351	14	214	100	0	2.04	42.1	-0.004	2.21	2535	.020	.50	10.38
9179	862	15.5	-11.7	734.0	14	348	14	208	110	0	1.88	42.2	-0.006	2.10	2798	.020	.50	10.89
10024	845	14.1	-15.6	712.0	11	350	12	201	120		1.37	43.4	-0.009	1.55	3055	.016	.41	11.29
10494	0	13.1	-18.5	700.0	9	0	0	196	125		1.07	43.8	-0.009	1.21	3199	.007	.17	11.46
10900	866	12.7	-18.8	690.0	9	8	12	194	130		1.05	44.7	-0.007	1.19	3319	.005	.12	11.58
11808	908	10.4	-20.2	670.0	10	61	11	189	140		.93	45.0	-0.006	1.19	3566	.010	.24	11.83
12524	826	8.8	-17.7	650.0	13	73	7	186	150	0	1.16	45.7	-0.003	1.41	3817	.010	.26	12.09
13327	803	6.3	-15.3	631.0	20	121	8	184	160		1.44	45.6	-0.002	1.89	4062	.013	.32	12.41
14147	820	3.8	-11.4	612.0	32	77	2	184	170		2.01	45.6	0	2.62	4312	.017	.44	12.84
14986	839	1.2	-7.9	593.0	51	131	4	184	180	0	2.67	45.4	.001	3.59	4568	.024	.60	13.44
15846	860	-0.4	-12.2	574.0	40	152	7	175	190		1.90	46.5	-0.011	2.58	4830	.023	.60	14.04
16682	836	-1.9	-15.8	556.0	34	151	10	168	200	0	1.43	47.7	-0.009	2.03	5085	.017	.42	14.46

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS 1) 03 11:80 1316 30
STATION, PNAS MIRAMAR, CALIF
1127Z 05 AUGUST 1979
FOR OP NO NONE
ASCENT NO 021
INTERMEDIATE OUTPUT VERSION NO 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	18.7	17.7	996.5	94	140	2	353	00		15.01	19.0	0	12.92	136			
888	0	17.4	17.3	981.0	99	0	0	349	05		14.76	19.0	-0.009	12.73	271	.080	2.02	2.02
1321	876	16.6	16.4	966.0	99	163	4	341	10		13.96	19.5	-0.018	12.28	403	.075	1.91	3.93
1408	0	16.6	16.4	963.0	99	0	0	341	11		13.96	19.7	-0.009	12.32	429	.015	.38	4.30
1673	0	20.8	11.7	954.0	56	0	0	311	14		10.16	24.8	-0.111	9.10	510	.039	.98	5.28
2215	894	21.5	7.2	936.0	40	167	4	290	20	0	7.46	27.1	-0.039	6.89	675	.058	1.46	6.74
2708	0	24.2	-35.2	920.0	1	0	0	241	25		.22	31.4	-0.099	.20	825	.023	.58	7.32
3180	965	26.1	-7.8	905.0	10	221	3	249	30	0	2.46	34.8	.016	2.33	969	.008	.19	7.51
3597	0	26.4	-14.5	892.0	6	0	0	239	35		1.43	36.3	-0.023	1.44	1096	.010	.25	7.76
4053	873	25.9	-20.7	878.0	4	1	7	233	40	0	.85	37.2	-0.014	.95	1235	.007	.17	7.93
4482	0	25.6	-34.3	865.0	1	0	0	226	45		.24	38.3	-0.016	.24	1366	.003	.08	8.01
4952	899	25.4	-34.5	851.0	1	344	12	223	50	0	.24	39.5	-0.007	.24	1509	.001	.03	8.05
5875	923	23.1	-35.9	824.0	1	324	14	217	60	0	.21	39.9	-0.006	.21	1791	.002	.06	8.11
6786	911	21.1	-37.1	798.0	1	326	14	212	70	0	.18	40.7	-0.006	.20	2068	.002	.05	8.16
7684	898	18.7	-38.5	773.0	1	331	14	206	80	0	.16	41.0	-0.006	.17	2342	.002	.05	8.21
8566	882	16.2	-19.0	749.0	7	332	12	207	90	0	1.02	41.1	0	1.07	2611	.006	.15	8.36
9433	867	14.6	-24.9	726.0	5	336	10	199	100	0	.61	42.2	-0.009	.71	2875	.008	.21	8.57
10283	850	12.4	-26.0	704.0	5	356	10	195	110	0	.55	42.6	-0.006	.64	3134	.006	.15	8.72
11154	871	10.9	-26.9	682.0	5	357	7	189	120		.51	43.8	-0.006	.60	3400	.005	.14	8.86
12008	854	9.4	-44.1	661.0	1	87	2	182	130	0	.09	45.0	-0.009	.11	3660	.003	.08	8.93
12883	875	6.7	-25.7	640.0	8	112	5	181	140		.58	44.8	-0.001	.76	3927	.004	.09	9.03
13778	895	4.2	-19.1	619.0	16	101	14	180	150		1.05	44.9	-0.001	1.33	4200	.009	.22	9.25
14697	919	1.5	-14.2	598.0	30	106	13	179	160	0	1.60	45.0	-0.001	2.13	4480	.015	.37	9.62
15549	852	-0.9	-8.9	579.0	55	127	6	181	170		2.48	45.1	.002	3.40	4739	.021	.53	10.15
16283	0	-2.7	-8.0	563.0	66	0	0	178	177		2.67	45.6	-0.003	3.67	4963	.023	.57	10.73
16516	967	-3.1	-11.2	558.0	54	79	4	174	180		2.09	45.9	-0.021	2.94	5034	.007	.17	10.90
16703	0	-3.6	-11.8	554.0	53	0	0	172	182		1.99	46.0	-0.008	2.80	5091	.005	.12	11.01
17415	899	-5.4	-13.4	539.0	53	99	3	168	190		1.76	46.3	-0.007	2.51	5308	.016	.40	11.42
17898	0	-6.5	-15.7	529.0	48	0	0	163	195		1.46	46.8	-0.009	2.13	5455	.009	.24	11.65
18338	923	-7.7	-15.6	520.0	53	93	6	162	200		1.48	46.9	-0.004	2.18	5589	.008	.20	11.85

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS 1) 03/11/80 1316.59
STATION PNAS MIRAMAR, CALIF.
1215Z 05 AUGUST 1979
FOR OP NO. NONE
ASCENT NO. 022
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	24.3	16.2	999.2	61	210	3	338	00		13.42	24.3	0	11.76	136			
827	0	21.9	15.9	986.0	69	0	0	336	05		13.29	23.1	-0.004	11.66	252	.062	1.57	1.57
1205	760	20.8	15.3	973.0	71	202	4	332	10	0	12.84	23.1	-0.013	11.36	367	.060	1.52	3.09
1588	0	20.4	15.5	960.0	74	0	0	330	15		13.01	23.8	-0.005	11.71	484	.060	1.52	4.61
1946	741	20.8	11.1	948.0	54	153	5	307	20		9.76	25.4	-0.063	8.83	593	.049	1.25	5.87
2066	0	20.8	5.3	944.0	36	0	0	287	22		6.55	25.7	-0.165	5.88	630	.012	.30	6.16
2400	0	23.5	5.2	933.0	31	0	0	281	26		6.48	29.5	-0.018	6.04	732	.026	.67	6.83
2709	763	23.8	2.5	923.0	25	171	16	272	30	0	5.32	30.7	-0.031	5.01	826	.022	.56	7.39
2990	0	24.0	9.1	914.0	39	0	0	287	34		8.42	31.8	.054	8.02	911	.023	.60	7.99
3306	0	23.8	5.0	904.0	30	0	0	273	38		6.39	32.5	-0.045	6.15	1008	.028	.72	8.71
3529	820	23.5	8.1	897.0	37	162	14	280	40		7.91	32.9	.032	7.52	1076	.019	.49	9.19
3689	0	23.5	12.9	892.0	51	0	0	296	42		10.85	33.4	.098	10.47	1124	.018	.46	9.65
4143	0	22.9	12.4	878.0	52	0	0	291	48		10.58	34.1	-0.010	10.46	1263	.059	1.49	11.14
4274	745	23.1	8.3	874.0	39	134	16	275	50	0	8.02	34.7	-0.123	7.95	1303	.015	.37	11.51
5070	796	22.4	6.4	850.0	35	136	14	264	60	0	7.04	36.5	-0.014	7.02	1545	.072	1.82	13.34
5852	782	21.5	.5	827.0	25	119	6	245	70	0	4.67	37.9	-0.024	4.86	1784	.055	1.39	14.73
6617	765	20.4	-4.6	805.0	18	37	9	232	80	0	3.20	39.2	-0.018	3.35	2017	.036	.92	15.64
7435	818	18.2	-2.2	782.0	25	21	13	231	90		3.87	39.5	-0.001	4.19	2266	.035	.88	16.53
8272	837	16.1	-0.1	759.0	33	15	13	231	100	0	4.56	39.9	0	4.99	2521	.042	1.07	17.60
9129	857	14.1	.7	736.0	40	24	13	228	110		4.85	40.4	-0.003	5.49	2783	.048	1.22	18.82
9968	839	12.2	.4	714.0	44	12	11	223	120		4.78	41.0	-0.006	5.50	3038	.048	1.23	20.05
10513	0	11.0	-0.2	700.0	46	0	0	219	126	0	4.58	41.6	-0.008	5.41	3204	.031	.78	20.83

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1317:28
STATION, PNAS MIRAMAR, CALIF.
2313Z 05 AUGUST 1979
FOR OP NO NONE
ASCENT NO 023
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	25.0	16.6	997.7	60	235	4	339	00		13.73	25.2	0	12.08	136			
784	0	22.7	16.8	986.0	70	0	0	340	04		14.03	23.9	.004	12.43	239	.057	1.46	1.46
1282	837	21.7	16.7	969.0	73	244	5	336	10	0	13.95	24.4	-0.008	12.41	391	.084	2.15	3.60
1730	0	23.8	15.6	954.0	60	0	0	324	15		12.94	27.8	-0.027	11.75	527	.072	1.84	5.44
1972	0	24.3	17.4	946.0	66	0	0	331	17		14.53	29.0	.027	13.47	601	.040	1.03	6.47
2156	874	25.2	10.8	940.0	40	190	4	298	20	0	9.39	30.5	-0.175	8.60	657	.026	.67	7.14
2588	0	24.7	10.9	926.0	42	0	0	296	25		9.49	31.4	-0.006	8.91	789	.049	1.25	8.39
3059	903	24.5	11.6	911.0	45	116	2	295	30	0	9.97	32.5	-0.002	9.60	932	.056	1.41	9.80
3505	0	24.0	13.3	897.0	51	0	0	298	35		11.11	33.4	.008	10.74	1068	.057	1.45	11.24
3924	865	23.8	10.6	884.0	43	81	5	285	40	0	9.35	34.5	-0.032	9.05	1196	.051	1.31	12.55
4317	0	23.1	11.2	872.0	47	0	0	285	45		9.76	34.9	0	9.63	1316	.045	1.14	13.69
4747	823	22.2	12.4	859.0	54	115	8	287	50	0	10.56	35.3	.005	10.65	1447	.053	1.34	15.03
5182	0	21.1	12.7	846.0	59	0	0	286	55		10.79	35.5	-0.002	11.05	1579	.056	1.43	16.46
5589	842	20.6	9.9	834.0	50	98	7	273	60	0	9.02	36.3	-0.032	9.18	1704	.049	1.23	17.69
6035	0	20.0	8.5	821.0	47	0	0	265	65		8.19	37.0	-0.017	8.44	1839	.046	1.16	18.86
6452	863	18.7	7.6	809.0	48	45	3	261	70	0	7.75	36.9	-0.011	8.06	1967	.040	1.01	19.86
6873	0	18.1	7.9	797.0	51	0	0	259	75		7.94	37.6	-0.004	8.38	2095	.039	1.00	20.87
7300	848	16.8	9.3	785.0	61	39	5	262	80	0	8.75	37.6	.006	9.39	2225	.043	1.08	21.95
7732	0	16.0	8.2	773.0	60	0	0	256	85		8.13	38.1	-0.014	8.91	2357	.044	1.12	23.07
8169	869	15.2	7.5	761.0	60	29	8	251	90		7.79	38.6	-0.010	8.59	2490	.042	1.07	24.13
8574	0	14.4	5.6	750.0	55	0	0	243	95		6.83	39.1	-0.020	7.58	2613	.036	.90	25.04
9022	853	13.2	4.4	738.0	55	47	12	238	100	0	6.33	39.2	-0.012	7.12	2750	.035	.90	25.93
9895	873	11.3	2.5	715.0	54	51	17	229	110		5.57	40.0	-0.011	6.36	3016	.062	1.57	27.51
10791	896	9.1	3.9	692.0	70	45	17	228	120		6.22	40.4	-0.001	7.36	3289	.063	1.60	29.11
11670	879	6.8	6.4	670.0	97	35	16	231	130	0	7.44	40.7	.004	9.03	3557	.072	1.83	30.94
12572	902	5.4	2.0	648.0	79	18	20	214	140	0	5.49	42.2	-0.019	6.88	3832	.070	1.78	32.72
13286	0	4.7	-7.0	631.0	42	0	0	194	148		2.82	43.8	-0.029	3.56	4050	.035	.90	33.62
13457	885	4.2	-7.1	627.0	43	6	22	193	150		2.80	43.8	-0.005	3.54	4102	.006	.14	33.76
14365	908	1.8	-7.2	606.0	51	2	23	189	160	0	2.81	44.2	-0.005	3.66	4378	.030	.77	34.53
15252	887	-0.7	-5.9	586.0	68	3	24	187	170	0	3.12	44.2	-0.002	4.22	4649	.032	.80	35.33
15795	0	-2.3	-8.2	574.0	64	0	0	181	176		2.64	44.3	-0.010	3.60	4814	.019	.48	35.81
16115	863	-2.8	-3.3	567.0	97	8	24	187	180		3.85	44.8	.019	5.34	4913	.013	.32	36.13
16487	0	-2.2	-2.3	559.0	100	0	0	186	184		4.17	46.9	-0.002	5.84	5025	.018	.45	36.58
17007	892	-2.8	-2.9	548.0	100	26	21	183	190		3.99	47.9	-0.007	5.69	5184	.025	.64	37.23
17879	872	-3.6	-3.7	530.0	100	45	18	177	200		3.77	50.1	-0.007	5.54	5450	.040	1.03	38.25

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1317:57
STATION, PNAS MIRAMAR, CALIF.
0513Z 06 AUGUST 1979
FOR OP. NO. NONE
ASCENT NO. 024
INTERMEDIATE OUTPUT VERSION NO. 45

HT(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX.G/KG)	P(M)	PWIN	PWHH	PWSUM
445	0	21.9	18.1	999.1	79	50	2	352	00		15.30	21.9	0	13.20	136			
880	0	21.4	17.9	984.0	80	0	0	347	05		15.09	22.8	-0.011	13.17	268	.080	2.02	2.02
1319	874	22.3	8.2	969.0	40	92	2	301	10	0	7.96	25.0	-0.106	6.99	402	.060	1.54	3.56
1794	0	23.4	-3.6	953.0	16	0	0	269	15		3.36	27.5	-0.067	3.02	547	.032	.81	4.37
2217	898	22.5	8.0	939.0	39	109	1	292	20		7.87	27.9	.055	7.12	676	.028	.72	5.09
2401	0	22.1	15.2	933.0	65	0	0	319	22		12.67	28.0	.146	11.75	732	.023	.58	5.67
2771	0	23.2	10.3	921.0	44	0	0	294	27		9.15	30.3	-0.067	8.57	845	.049	1.24	6.91
3147	930	22.5	15.0	909.0	62	137	4	311	30	0	12.47	30.7	.045	11.79	959	.049	1.24	8.15
3593	0	24.3	16.6	895.0	62	0	0	313	35		13.77	33.9	.004	13.38	1095	.070	1.79	9.94
4015	868	23.4	15.1	882.0	60	43	5	303	40	0	12.55	34.3	-0.023	12.42	1224	.067	1.70	11.64
4408	0	22.5	14.8	870.0	62	0	0	300	45		12.31	34.5	-0.009	12.32	1344	.059	1.51	13.15
4873	858	22.1	14.4	856.0	62	57	10	295	50	0	12.02	35.5	-0.011	12.22	1485	.069	1.75	14.90
5276	0	21.0	14.2	844.0	65	0	0	292	55		11.90	35.6	-0.007	12.15	1608	.058	1.49	16.38
5718	845	19.9	14.0	831.0	69	39	10	289	60	0	11.85	35.9	-0.006	12.24	1743	.063	1.61	17.99
6096	0	19.5	11.1	820.0	58	0	0	275	64		9.81	36.6	-0.038	10.14	1858	.049	1.25	19.24
6618	900	17.8	13.9	805.0	78	39	12	284	70	0	11.84	36.5	.018	12.53	2017	.068	1.73	20.97
7361	0	16.0	14.0	784.0	88	0	0	281	78		11.95	36.8	-0.004	12.96	2244	.107	2.72	23.69
7505	887	15.8	10.0	780.0	68	39	11	264	80	0	9.20	37.1	-0.120	9.89	2288	.018	.46	24.16
7902	0	15.0	14.7	769.0	98	0	0	282	85		12.60	37.5	.045	13.82	2409	.052	1.33	25.48
8157	0	14.2	10.2	762.0	76	0	0	262	87		9.36	37.5	-0.080	10.21	2486	.034	.85	26.34
8340	835	14.0	9.0	757.0	72	47	12	256	90		8.67	37.8	-0.029	9.61	2542	.020	.50	26.84
9196	856	12.9	7.1	734.0	68	42	14	245	100	0	7.67	39.3	-0.013	8.70	2803	.084	2.14	28.98
10075	879	11.0	6.7	711.0	75	52	15	239	110	0	7.49	40.1	-0.006	8.74	3071	.080	2.04	31.01
10976	901	9.2	6.3	688.0	82	51	19	234	120	0	7.34	41.1	-0.006	8.75	3345	.080	2.04	33.06
11699	0	8.3	3.9	670.0	74	0	0	223	128		6.21	42.5	-0.015	7.62	3566	.059	1.50	34.55
11862	886	7.8	3.6	666.0	75	56	17	221	130		6.08	42.4	-0.009	7.50	3616	.012	.31	34.86
12771	909	5.3	2.6	644.0	82	61	16	215	140		5.72	42.7	-0.007	7.14	3893	.064	1.64	36.50
13704	933	3.3	2.2	622.0	92	61	17	209	150	0	5.61	43.5	-0.006	7.21	4177	.063	1.60	38.10
14619	915	1.4	1.3	601.0	100	72	15	203	160		5.30	44.4	-0.007	7.08	4456	.060	1.52	39.62
15561	942	-0.2	-0.3	580.0	100	72	16	195	170		4.76	45.8	-0.009	6.53	4743	.057	1.45	41.08
16438	877	-1.5	-1.5	561.0	100	93	17	188	180		4.35	47.3	-0.008	6.13	5010	.048	1.22	42.30
17293	855	-2.3	-2.3	543.0	100	94	17	182	190		4.12	49.4	-0.007	5.97	5271	.044	1.11	43.40
17877	0	-3.5	-3.6	531.0	100	0	0	177	197		3.79	50.0	-0.008	5.58	5449	.028	.70	44.11
18123	830	-4.4	-6.9	526.0	83	99	16	171	200		2.95	49.8	-0.025	4.36	5526	.010	.25	44.36

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1318:26
STATION, PNAS MIRAMAR, CALIF.
1115Z 06 AUGUST 1979
FOR OP. NO. NONE
ASCENT NO. 025
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	20.3	17.3	998.8	83	170	2	350	00		14.62	20.4	0	12.56	136			
625	0	19.8	17.9	992.5	89	0	0	352	02		15.18	20.5	.012	13.16	190	.032	.82	.82
899	0	21.6	15.2	983.0	67	0	0	333	05		12.74	23.1	-0.069	11.14	274	.046	1.17	2.00
1337	892	21.6	7.3	968.0	40	161	4	299	10	0	7.54	24.4	-0.078	6.70	408	.054	1.36	3.36
1873	0	23.4	-2.0	950.0	18	0	0	271	15		3.86	27.8	-0.052	3.41	571	.036	.93	4.28
2236	899	22.7	4.8	938.0	31	171	6	282	20	0	6.30	28.2	.032	5.73	682	.022	.56	4.84
2696	0	22.3	6.0	923.0	35	0	0	282	25		6.88	29.1	0	6.42	822	.036	.93	5.76
3164	928	21.8	14.6	908.0	64	176	5	310	30	0	12.24	30.1	.059	11.67	964	.054	1.38	7.14
3576	0	21.6	16.1	895.0	71	0	0	314	34		13.43	31.1	.009	13.00	1090	.064	1.63	8.77
4059	895	21.6	14.7	880.0	65	55	4	303	40	0	12.30	32.6	-0.022	12.09	1237	.075	1.91	10.68
4484	0	20.9	13.7	867.0	63	0	0	296	45		11.58	33.2	-0.016	11.38	1367	.061	1.55	12.23
4880	821	20.3	12.7	855.0	62	100	5	290	50	0	10.86	33.7	-0.017	10.94	1487	.054	1.36	13.59
5720	840	17.7	10.9	830.0	64	93	5	279	60	0	9.73	33.6	-0.013	9.87	1743	.104	2.64	16.23
6579	859	16.1	10.2	805.0	68	100	5	271	70	0	9.32	34.6	-0.009	9.77	2005	.098	2.49	18.73
7460	881	14.7	9.2	780.0	70	81	6	262	80	0	8.74	35.9	-0.010	9.48	2274	.096	2.44	21.17
8364	904	12.9	7.5	755.0	70	78	9	252	90	0	7.86	36.8	-0.012	8.70	2549	.091	2.31	23.48
9255	891	11.0	6.5	731.0	74	81	8	244	100	0	7.36	37.6	-0.009	8.38	2821	.082	2.08	25.57
10170	915	9.2	5.8	707.0	79	78	11	237	110	0	7.08	38.6	-0.007	8.20	3100	.080	2.02	27.59
11071	901	7.4	4.1	684.0	80	67	12	228	120		6.33	39.5	-0.010	7.58	3374	.073	1.84	29.43
11995	924	5.1	3.3	661.0	88	78	12	222	130		6.04	40.1	-0.007	7.36	3656	.069	1.75	31.18
12487	0	4.2	4.1	649.0	99	0	0	221	135		6.39	40.7	-0.001	7.93	3806	.037	.93	32.11
12946	951	3.9	3.7	638.0	99	86	13	217	140		6.24	41.9	-0.008	7.90	3946	.035	.88	32.99
13412	0	3.4	3.3	627.0	100	0	0	214	145		6.11	42.9	-0.008	7.83	4088	.035	.88	33.87
13884	938	2.6	.6	616.0	87	105	14	205	150		5.01	43.5	-0.020	6.54	4232	.032	.80	34.68
14806	922	.9	-1.3	595.0	85	123	16	196	160		4.39	44.8	-0.009	5.85	4513	.052	1.32	36.00
15709	903	-0.7	-2.8	75.0	86	134	17	189	170		3.97	46.0	-0.008	5.45	4788	.045	1.15	37.15
16171	0	-1.5	-4.2	565.0	82	0	0	184	175		3.58	46.7	-0.010	4.98	4929	.021	.53	37.68
16592	883	-2.3	-4.4	556.0	85	141	18	182	180		3.53	47.2	-0.006	4.95	5057	.018	.45	38.13
17065	0	-3.7	-4.3	546.0	96	0	0	180	185		3.58	47.2	-0.003	5.12	5201	.020	.51	38.64
17497	905	-5.0	-5.0	537.0	100	133	15	177	190	0	3.39	47.1	-0.007	4.92	5333	.018	.46	39.10
17935	0	-5.5	-6.1	528.0	95	0	0	173	195		3.13	48.1	-0.009	4.57	5467	.017	.43	39.53
18381	884	-3.6	-7.3	519.0	76	125	12	168	200	0	2.83	51.7	-0.013	4.23	5603	.016	.40	39.94

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1318:52
STATION, PNAS MIRAMAR, CALIF.
1715Z 06 AUGUST 1979
FOR OP. NO. NONE
ASCENT NO. 026
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWHM	PWSUM
445	0	26.7	16.6	996.0	54	320	2	336	00		13.69	27.0	0	12.05	136			
738	0	26.0	16.4	986.0	56	0	0	333	05		13.51	27.2	-0.010	12.11	225	.048	1.23	1.23
1122	677	25.2	17.0	973.0	60	305	4	334	10	0	14.12	27.6	.002	12.55	342	.064	1.63	2.86
1511	0	25.0	15.4	960.0	55	0	0	323	15		12.73	28.5	-0.029	11.50	461	.063	1.59	4.44
1905	783	25.0	16.8	947.0	60	306	5	326	20	0	13.88	29.7	.008	12.74	581	.063	1.60	6.04
2490	0	24.8	13.4	928.0	49	0	0	306	28		11.18	31.2	-0.035	10.46	759	.088	2.24	8.28
2877	772	24.3	13.6	922.0	51	175	6	306	30		11.37	31.3	0	10.63	816	.025	.64	8.93
3212	0	23.4	13.7	905.0	55	0	0	303	37		11.44	32.0	-0.006	11.08	979	.074	1.87	10.80
3531	654	22.9	16.4	895.0	67	174	6	314	40	0	13.65	32.5	.033	13.28	1076	.049	1.24	12.04
3983	0	22.2	15.8	881.0	67	0	0	308	45		13.18	33.1	-0.013	12.93	1214	.073	1.86	13.90
4409	876	21.1	18.1	868.0	83	142	9	318	50	0	15.31	33.3	.024	15.25	1344	.073	1.86	15.76
4872	0	20.0	15.6	854.0	76	0	0	303	55		13.12	33.5	-0.033	13.22	1485	.080	2.03	17.79
5273	864	18.9	13.2	842.0	69	121	12	290	60	0	11.23	33.7	-0.033	11.34	1607	.059	1.50	19.29
5724	851	17.4	11.7	817.0	69	92	11	279	70	0	10.26	34.7	-0.013	10.62	1867	.110	2.79	22.07
6996	872	15.4	10.8	792.0	74	110	10	271	80	0	9.74	35.3	-0.009	10.34	2132	.105	2.66	24.74
7853	857	13.6	10.2	768.0	80	114	10	264	90	0	9.41	36.1	-0.008	10.26	2394	.099	2.51	27.25
8732	879	11.9	9.0	744.0	82	90	10	255	100	0	8.71	37.0	-0.010	9.70	2662	.096	2.43	29.68
9597	865	10.9	7.0	721.0	77	96	10	243	110	0	7.65	38.8	-0.014	8.79	2925	.085	2.16	31.84
10487	890	10.5	4.6	698.0	67	94	11	230	120	0	6.50	41.3	-0.014	7.68	3196	.076	1.92	33.77
11363	876	8.7	1.0	676.0	58	106	10	217	130	0	5.05	42.1	-0.015	6.06	3463	.060	1.54	35.30
12219	856	6.2	1.5	655.0	72	102	10	214	140		5.28	42.1	-0.003	6.55	3724	.053	1.35	36.65
13095	876	4.1	-1.2	634.0	68	101	11	205	150		4.38	42.7	-0.011	5.51	3991	.051	1.29	37.94
13952	857	2.5	-1.2	614.0	77	109	11	200	160	0	4.41	43.7	-0.005	5.76	4253	.045	1.15	39.08
14831	879	1.3	-10.0	594.0	42	111	11	182	170	0	2.25	45.4	-0.021	2.97	4520	.035	.89	39.97
15737	906	.5	-11.6	574.0	40	127	11	175	180	0	1.99	47.6	-0.007	2.76	4797	.023	.58	40.55
16670	933	-1.6	-6.9	554.0	67	123	10	177	190	0	2.92	48.4	.002	4.11	5081	.027	.70	41.25
17583	913	-3.0	-12.8	535.0	46	137	10	165	200	0	1.82	49.9	-0.013	2.63	5359	.028	.65	41.90

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS 1) 03/11/80 1319:20
STATION, PNAS MIRAMAR, CALIF
23142 06 AUGUST 1979
FOR OP NO NONE
ASCENT NO 027
INTERMEDIATE OUTPUT VERSION NO 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	31.4	10.7	997.6	28	305	7	306	00		9.15	31.6	0	8.13	136			
699	0	28.5	6.5	989.0	25	0	0	294	03		6.93	29.4	-0.047	6.18	213	.025	.63	.63
1143	698	27.5	7.7	974.0	29	254	8	295	10	0	7.58	29.7	.002	6.88	348	.039	.99	1.62
1472	0	26.2	8.0	963.0	32	0	0	294	15		7.78	29.5	-0.001	7.11	449	.031	.78	2.40
1804	661	25.3	11.6	952.0	43	268	6	305	20	0	9.95	29.5	.032	9.20	550	.036	.91	3.31
2170	0	24.3	13.0	940.0	49	0	0	308	25		10.92	29.6	.009	10.01	661	.046	1.17	4.48
2509	705	23.8	15.3	929.0	59	251	3	316	30	0	12.68	30.2	.023	11.87	765	.048	1.22	5.71
2945	0	22.9	16.4	915.0	67	0	0	319	36		13.62	30.5	.006	12.99	898	.070	1.77	7.47
3229	720	22.7	15.7	906.0	65	241	4	313	40	0	13.05	31.1	-0.019	12.56	984	.046	1.17	8.64
3610	0	21.8	15.5	894.0	68	0	0	310	45		12.92	31.4	-0.008	12.61	1100	.060	1.53	10.18
4028	799	20.9	15.1	881.0	70	200	2	307	50	0	12.69	31.7	-0.009	12.46	1228	.065	1.66	11.83
4419	0	20.4	13.2	869.0	63	0	0	295	55		11.18	32.4	-0.030	11.00	1347	.056	1.43	13.26
4847	819	19.8	13.0	856.0	65	186	8	292	60	0	11.12	33.1	-0.007	11.11	1477	.057	1.46	14.72
5550	0	18.7	12.3	835.0	66	0	0	284	68		10.62	34.1	-0.011	10.79	1692	.092	2.34	17.06
5686	839	18.5	11.3	831.0	63	183	10	279	70		9.93	34.3	-0.036	10.21	1733	.017	.43	17.49
5959	0	18.2	10.7	823.0	61	0	0	275	73		9.56	34.9	-0.015	9.79	1816	.032	.81	18.30
6546	860	16.8	10.0	806.0	64	176	13	270	80		9.19	35.2	-0.009	9.60	1995	.066	1.67	19.97
6827	0	17.0	10.5	798.0	66	0	0	270	83		9.51	36.3	-0.001	10.13	2081	.032	.80	20.78
7394	848	15.5	7.7	782.0	60	172	15	257	90	0	7.89	36.6	-0.022	8.52	2254	.060	1.52	22.29
7934	0	14.5	6.5	767.0	59	0	0	250	97		7.30	37.2	-0.012	8.00	2418	.050	1.26	23.55
8189	795	13.5	6.2	760.0	61	166	16	248	100		7.15	36.9	-0.008	7.83	2496	.022	.56	24.11
9000	811	11.6	6.2	738.0	70	158	17	245	110	0	7.23	37.4	-0.005	8.17	2743	.070	1.79	25.90
9338	0	11.0	6.3	729.0	73	0	0	243	119		7.30	37.9	-0.004	8.29	2846	.030	.75	26.65
9870	870	10.3	4.4	715.0	67	150	20	235	120		6.41	38.8	-0.016	7.39	3008	.044	1.12	27.77
10178	0	9.5	3.6	707.0	66	0	0	231	123		6.06	39.0	-0.012	6.97	3102	.023	.58	28.35
10763	893	8.4	2.8	692.0	68	143	21	226	130	0	5.77	39.7	-0.009	6.81	3281	.041	1.05	29.40
11641	878	7.3	-0.3	670.0	58	138	20	214	140		4.61	41.4	-0.014	5.56	3548	.054	1.38	30.79
12501	860	5.6	-7.5	649.0	38	149	17	197	150		2.70	42.3	-0.019	3.33	3810	.037	.95	31.73
13341	840	4.9	-13.9	629.0	24	156	14	186	160		1.62	44.3	-0.014	2.06	4066	.022	.55	32.28
14205	864	3.5	-20.8	609.0	15	149	13	176	170	0	.91	45.7	-0.011	1.21	4330	.013	.33	32.61
15048	843	1.7	-19.4	590.0	19	143	12	173	180		1.03	46.4	-0.004	1.39	4587	.010	.25	32.86
15914	866	.5	-19.2	571.0	21	149	12	169	190		1.06	48.1	-0.005	1.45	4851	.011	.27	33.14
16804	890	-0.9	-22.4	552.0	18	149	13	162	200		.80	49.5	-0.007	1.16	5122	.010	.25	33.39

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1319 55
STATION, PNAS MIRAMAR, CALIF.
0520Z 07 AUGUST 1979
FOR OP. NO. NONE
ASCENT NO. 028
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWHH	PWSUM
445	0	21.1	19.9	999.0	93	295	3	363	00		17.11	21.2	0	14.84	136			
935	0	20.6	19.7	982.0	95	0	0	358	06		16.97	22.2	-0.010	14.96	285	.101	2.57	2.57
1226	0	21.6	.6	972.0	25	0	0	283	09		4.71	24.0	-0.258	4.16	374	.038	.97	3.54
1314	869	22.5	-12.7	969.0	8	308	7	264	10		1.68	25.2	-0.218	1.40	401	.003	.08	3.63
1461	0	22.7	-14.6	964.0	7	0	0	261	12		1.44	25.8	-0.020	1.25	445	.003	.07	3.70
1789	0	22.0	13.9	953.0	60	0	0	318	16		11.65	26.1	.174	10.53	545	.026	.66	4.35
2151	837	22.9	8.4	941.0	39	133	2	293	20	0	8.08	28.1	-0.068	7.29	656	.043	1.09	5.44
2581	0	22.9	13.9	927.0	57	0	0	310	25		11.64	29.4	.039	10.87	787	.051	1.29	6.73
2986	835	22.9	14.5	914.0	59	112	3	309	30	0	12.05	30.7	-0.003	11.42	910	.058	1.47	8.20
3428	0	22.5	13.6	900.0	57	0	0	303	35		11.42	31.5	-0.015	10.93	1045	.063	1.59	9.79
3812	826	22.2	12.0	888.0	52	144	4	293	40		10.26	32.5	-0.025	9.91	1162	.050	1.27	11.06
3909	0	21.8	11.1	885.0	51	0	0	289	41		9.73	32.3	-0.036	9.51	1191	.012	.30	11.36
4560	748	20.6	11.0	865.0	54	136	4	285	50	0	9.68	33.1	-0.007	9.57	1390	.076	1.94	13.30
5358	798	19.5	9.6	841.0	53	181	5	275	60	0	8.88	34.4	-0.012	9.02	1633	.089	2.27	15.56
6141	783	18.0	7.4	818.0	50	193	7	263	70	0	7.64	35.2	-0.015	7.95	1872	.078	1.98	17.55
6977	836	16.3	8.0	794.0	58	190	8	261	80	0	8.05	36.1	-0.003	8.54	2127	.079	2.01	19.56
7368	0	15.7	4.8	783.0	48	0	0	249	85		6.46	36.6	-0.030	6.88	2246	.034	.86	20.42
7798	821	14.7	5.7	771.0	55	181	11	249	90		6.89	36.9	.001	7.51	2377	.035	.88	21.30
8601	803	12.5	4.4	749.0	58	173	11	242	100		6.37	37.1	-0.009	7.06	2622	.064	1.63	22.92
9009	0	11.9	4.5	738.0	60	0	0	239	105		6.39	37.8	-0.006	7.13	2746	.031	.79	23.72
9422	821	10.8	1.4	727.0	52	169	12	230	110	0	5.14	37.9	-0.023	5.82	2872	.028	.72	24.44
10262	840	8.7	.9	705.0	58	171	14	225	120	0	5.03	38.3	-0.006	5.81	3128	.051	1.30	25.74
11123	861	7.4	-5.5	683.0	39	169	14	208	130		3.13	39.7	-0.019	3.68	3390	.042	1.06	26.80
11966	843	6.5	-19.8	662.0	13	165	12	190	140	0	.98	41.5	-0.022	1.18	3647	.020	.52	27.32
12791	825	5.3	-27.6	642.0	7	134	15	182	150		.49	42.9	-0.009	.60	3899	.007	.18	27.50
13638	847	3.7	-33.3	622.0	5	131	16	176	160		.28	44.0	-0.007	.40	4157	.004	.10	27.60
14508	870	2.4	-43.1	602.0	2	146	15	170	170		.10	45.4	-0.007	.15	4422	.002	.06	27.66
15402	894	.7	-46.0	582.0	2	137	17	165	180		.08	46.6	-0.005	.14	4695	.001	.03	27.69
16322	920	-0.7	-50.4	562.0	1	141	19	160	190		.05	48.1	-0.005	.06	4975	.001	.02	27.71
16746	0	-1.2	-50.7	553.0	1	0	0	158	195		.04	49.0	-0.005	.06	5104	.000	.01	27.72
17223	901	-3.0	-8.0	543.0	68	129	21	173	200		2.68	48.6	.031	3.84	5250	.008	.20	27.91

A FIN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS 1) 03/11/80 1320:55
STATION, PNAS MIRAMAR, CALIF
1115Z 07 AUGUST 1979
FOR OP NO. NONE
ASCENT NO. 029
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	[illegible]	10.4	997.8	86	50	1	346	00		13.81	19.0	0	11.86	136			
783	0	20.7	19.1	986.0	91	0	0	356	04		16.32	21.9	.027	14.34	239	.062	1.57	1.57
1074	0	22.7	7.8	976.0	38	0	0	301	07		7.75	24.8	-0.188	6.76	327	.042	1.07	2.64
1309	864	23.4	-1.1	968.0	20	17	2	277	10	0	4.12	26.1	-0.101	3.72	399	.017	.43	3.07
1756	0	22.9	15.1	953.0	61	0	0	322	15		12.54	27.0	.101	11.32	535	.045	1.15	4.21
2211	902	23.1	10.7	938.0	46	10	5	300	20	0	9.42	28.6	-0.049	8.75	674	.060	1.53	5.74
2580	0	23.1	18.0	926.0	73	0	0	330	24		15.07	29.7	.080	14.18	786	.055	1.40	7.14
2830	0	23.4	12.7	918.0	51	0	0	302	27		10.71	30.7	-0.111	10.11	863	.039	.99	8.13
3144	933	23.1	15.3	908.0	61	49	1	311	30	0	12.71	31.4	.029	12.04	958	.044	1.13	9.25
3943	799	21.4	13.9	883.0	63	165	3	301	40	0	11.72	32.0	-0.013	11.52	1202	.118	2.99	12.25
4761	818	20.5	12.5	858.0	60	180	6	289	50	0	10.68	33.6	-0.014	10.67	1451	.111	2.82	15.07
5601	840	19.4	13.2	833.0	67	190	10	287	60	0	11.25	35.1	-0.003	11.48	1707	.111	2.81	17.88
6462	861	18.2	9.0	808.0	55	184	12	266	70	0	8.56	36.5	-0.025	8.98	1970	.102	2.60	20.48
7309	847	15.7	7.6	784.0	58	172	10	257	80	0	7.83	36.6	-0.010	8.32	2228	.083	2.11	22.59
8175	866	14.4	5.4	760.0	55	168	11	246	90		6.77	37.8	-0.013	7.48	2492	.076	1.93	24.51
8617	0	13.4	2.6	748.0	48	0	0	236	95		5.57	38.2	-0.022	6.20	2626	.033	.83	25.35
9026	851	12.1	2.3	737.0	51	171	11	233	100		5.49	38.1	-0.006	6.14	2751	.027	.69	26.04
9896	870	9.5	2.0	714.0	60	168	10	229	110	0	5.43	38.1	-0.005	6.27	3016	.057	1.45	27.49
10786	890	7.0	.7	691.0	64	167	10	222	120	0	4.98	38.2	-0.008	5.83	3288	.056	1.41	28.90
11699	913	5.3	-6.3	668.0	43	168	12	204	130		2.97	39.3	-0.019	3.59	3566	.043	1.10	30.00
12596	897	3.6	-13.1	646.0	28	167	16	192	140	0	1.74	40.4	-0.014	2.14	3839	.025	.64	30.64
13519	923	2.3	-19.6	624.0	18	177	15	182	150		1.01	42.0	-0.011	1.30	4121	.015	.38	31.02
14425	906	1.0	-22.0	603.0	16	171	13	176	160		.83	43.6	-0.007	1.09	4397	.010	.25	31.28
15359	934	-0.9	-19.3	582.0	23	171	14	173	170	0	1.05	44.6	-0.004	1.41	4681	.010	.27	31.54
16277	918	-0.9	-25.7	562.0	13	171	17	164	180	0	.60	47.8	-0.009	.82	4961	.009	.23	31.77
17224	947	-3.0	-28.4	542.0	12	171	22	159	190		.47	48.8	-0.006	.68	5250	.006	.15	31.92
18150	926	-5.1	-31.2	523.0	11	170	23	154	200		.36	49.5	-0.005	.55	5532	.005	.12	32.04

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1321:23
STATION, PNAS MIRAMAR, CALIF.
1715Z 07 AUGUST 1979
FOR OP. NO. NONE
ASCENT NO. 030
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	A(M)	PWIN	PWMM	PWSUM
445	0	27.8	14.6	992.0	44	190	4	324	00		11.97	28.5	[illegible]	10.48	136			
621	0	26.8	14.5	986.0	47	0	0	323	05		11.89	28.1	-0.005	10.63	189	.025	.64	.64
977	532	25.9	14.2	974.0	49	273	4	320	10	0	11.77	28.2	-0.008	10.64	298	.051	1.30	1.94
1365	0	25.2	14.0	961.0	50	0	0	317	15		11.60	28.6	-0.009	10.55	416	.055	1.40	3.34
1758	781	24.7	13.4	948.0	49	231	2	311	20	0	11.15	29.3	-0.014	10.17	536	.054	1.37	4.71
2126	0	25.2	11.8	936.0	43	0	0	301	25		10.05	30.9	-0.027	9.30	648	.047	1.19	5.89
2529	771	24.5	11.9	923.0	45	144	2	299	30	0	10.12	31.4	-0.006	9.47	771	.049	1.24	7.13
2905	0	23.8	13.2	911.0	51	0	0	302	35		11.05	31.8	.008	10.44	885	.048	1.21	8.35
3318	789	23.1	12.3	898.0	51	120	4	296	40	0	10.46	32.4	-0.015	10.15	1011	.054	1.36	9.71
3704	0	22.5	12.4	886.0	53	0	0	294	45		10.56	32.9	-0.005	10.31	1129	.049	1.25	10.96
4126	808	21.4	12.6	873.0	57	154	6	292	50	0	10.72	33.0	-0.003	10.53	1258	.054	1.38	12.33
4454	0	20.7	12.6	863.0	60	0	0	291	54		10.78	33.4	-0.005	10.74	1358	.043	1.08	13.41
4919	793	19.8	10.7	849.0	55	147	7	280	60	0	9.49	33.9	-0.022	9.45	1499	.057	1.44	14.85
5695	776	18.4	8.8	826.0	54	147	8	270	70	0	8.45	34.8	-0.014	8.73	1736	.084	2.12	16.97
6455	760	17.1	5.6	804.0	46	153	8	255	80	0	6.78	35.8	-0.019	7.02	1967	.069	1.76	18.73
7232	777	16.1	5.5	782.0	49	152	9	250	90	0	6.78	37.2	-0.006	7.22	2204	.063	1.59	20.32
8027	795	14.2	6.0	760.0	58	157	9	247	100	0	7.06	37.6	-0.003	7.79	2447	.066	1.68	22.00
8803	776	12.2	.8	739.0	45	156	9	230	110	0	4.91	38.0	-0.022	5.43	2683	.056	1.41	23.41
9595	792	10.4	-0.4	718.0	47	168	9	224	120	0	4.54	38.6	-0.008	5.18	2925	.045	1.13	24.54
10366	771	8.4	-3.7	698.0	42	165	10	214	130		3.58	38.9	-0.013	4.15	3160	.037	.95	25.49
11153	787	6.3	-3.5	678.0	50	167	10	211	140	0	3.66	39.1	-0.004	4.41	3399	.034	.87	26.36
11473	0	5.6	-0.2	670.0	66	0	0	215	144		4.68	39.4	.014	5.62	3497	.016	.41	26.77
11959	806	4.[illegible]	-1.3	658.0	64	169	10	210	150		4.32	40.3	-0.010	5.29	3645	.026	.67	27.43
12786	827	3.4	-1.6	638.0	70	171	11	205	160	0	4.25	41.3	-0.006	5.37	3897	.043	1.08	28.52
13590	804	1.1	-5.8	619.0	60	191	10	195	170	0	3.13	41.4	-0.013	4.02	4142	.036	.91	29.42
14412	822	-1.1	-4.9	600.0	76	186	10	193	180	0	3.39	41.7	-0.003	4.47	4393	.032	.82	30.24
14765	0	-0.3	-12.0	592.0	41	0	0	181	184		1.94	43.8	-0.034	2.59	4500	.011	.29	30.53
15260	848	.3	-19.2	581.0	21	186	11	172	190	0	1.06	46.2	-0.018	1.41	4651	.009	.22	30.75
16040	780	-1.1	-22.3	564.0	18	192	12	166	200		.81	47.3	-0.007	1.12	4889	.009	.22	30.97

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1321:55
STATION, PNAS MIRAMAR, CALIF.
2325Z 07 AUGUST 1979
FOR OP. NO. NONE
ASCENT NO. 031
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	27.9	14.0	997.7	43	315	7	323	00		11.53	28.1	0	10.24	136			
670	0	25.7	8.6	990.0	34	0	0	304	03		8.11	26.5	-0.086	7.14	204	.027	.68	.68
1168	723	23.6	12.3	973.0	49	286	9	315	10	0	10.47	25.9	.023	9.26	356	.056	1.42	2.10
1674	0	23.3	13.3	956.0	53	0	0	315	17		11.20	27.2	0	10.03	510	.066	1.67	3.76
1915	747	22.7	12.7	948.0	53	298	8	311	20	0	10.77	27.2	-0.016	9.75	584	.032	.80	4.57
2249	0	22.4	16.3	937.0	68	0	0	325	24		13.58	28.0	.041	12.48	685	.049	1.24	5.81
2711	796	22.2	14.4	922.0	61	287	9	312	30	0	12.02	29.2	-0.028	11.22	826	.071	1.81	7.61
3149	0	22.0	13.9	908.0	60	0	0	306	35		11.65	30.3	-0.013	11.06	960	.062	1.58	9.20
3593	882	22.2	12.9	894.0	56	267	6	298	40	0	10.91	31.8	-0.018	10.61	1095	.061	1.54	10.74
4012	0	22.0	10.9	881.0	49	0	0	287	45		9.55	32.9	-0.027	9.29	1223	.052	1.31	12.05
4403	810	22.0	10.4	869.0	48	204	8	282	50		9.27	34.1	-0.012	9.22	1342	.044	1.13	13.18
5168	765	20.9	8.4	846.0	45	179	10	271	60	0	8.13	35.3	-0.015	8.29	1575	.081	2.05	15.23
5985	817	19.8	7.4	824.0	45	162	11	262	70	0	7.62	36.7	-0.010	7.97	1824	.078	1.98	17.21
6821	836	18.1	6.3	798.0	46	162	10	254	80	0	7.10	37.5	-0.009	7.54	2079	.074	1.89	19.10
7607	786	16.9	2.6	776.0	38	170	11	240	90	0	5.49	38.7	-0.018	5.92	2319	.059	1.50	20.60
8410	803	14.6	2.9	754.0	45	175	14	237	100	0	5.66	38.9	-0.004	6.23	2563	.053	1.36	21.96
9192	782	12.7	1.7	733.0	47	173	15	230	110	0	5.24	39.3	-0.008	5.91	2802	.051	1.30	23.26
10031	839	10.4	1.6	711.0	54	184	14	226	120		5.25	39.5	-0.005	6.02	3057	.053	1.33	24.59
10418	0	9.2	1.7	701.0	60	0	0	225	125		5.30	39.3	-0.004	6.26	3175	.025	.62	25.22
10888	857	8.6	-3.1	689.0	43	181	14	212	130		3.73	40.3	-0.027	4.37	3319	.026	.65	25.86
11728	840	6.7	-4.9	668.0	43	176	13	205	140	0	3.28	40.9	-0.008	3.96	3575	.035	.89	26.75
12546	818	4.4	-2.5	648.0	61	183	13	206	150		3.96	41.1	0	4.94	3824	.036	.90	27.65
13299	753	2.9	-2.9	630.0	66	197	11	201	160		3.88	41.9	-0.006	4.94	4054	.036	.90	28.56
14069	770	.8	-3.4	612.0	74	203	12	197	170		3.77	42.1	-0.005	4.91	4288	.035	.90	29.46
14199	0	.5	-2.9	609.0	78	0	0	197	172		3.92	42.1	.002	5.09	4328	.006	.15	29.61
14856	787	-1.1	-5.7	594.0	71	206	13	190	180		3.19	42.5	-0.012	4.22	4528	.028	.71	30.32
15346	0	-2.2	-8.2	583.0	63	0	0	184	186		2.63	43.0	-0.012	3.51	4677	.017	.43	30.75
15707	851	-2.1	-17.4	575.0	30	202	14	172	190		1.25	44.4	-0.031	1.70	4787	.008	.21	30.97
16539	832	-1.9	-26.1	557.0	14	200	16	163	200		.58	47.5	-0.011	.83	5041	.009	.23	31.20

A FTN 062 (PAUSE 33333)

RAWINSONDE DATA (WBS-1) 03/11/80 1322:25
STATION, PNAS MIRAMAR, CALIF.
0515Z 08 AUGUST 1979
FOR OP. NO. NONE
ASCENT NO. 032
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		ABS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMR	PWSUM
445	0	22.3	21.9	999.2	98	300	2	374	00		19.30	22.4	0	16.88	136			
827	0	22.3	21.8	986.0	97	0	0	370	04		19.16	23.5	-0.011	16.93	252	.089	2.27	2.27
1327	882	24.1	16.3	969.0	61	342	2	331	10	0	13.48	26.8	-0.079	11.98	404	.098	2.50	4.76
1716	0	24.6	14.2	956.0	52	0	0	317	14		11.78	28.5	-0.035	10.65	523	.059	1.49	6.26
1989	0	24.4	19.3	947.0	73	0	0	341	17		16.30	29.1	.088	15.01	606	.046	1.17	7.43
2265	938	24.1	18.2	938.0	69	80	2	333	20	0	15.22	29.6	-0.030	14.05	690	.052	1.33	8.76
2699	0	24.6	16.6	924.0	61	0	0	320	25		13.76	31.4	-0.029	12.97	823	.076	1.92	10.68
3012	0	23.7	15.6	914.0	60	0	0	314	28		12.91	31.4	-0.021	12.20	918	.050	1.28	11.96
3202	937	23.5	15.5	908.0	61	360	2	312	30	0	12.87	31.8	-0.008	12.34	976	.029	.75	12.71
3841	0	22.3	14.7	888.0	62	0	0	304	37		12.24	32.5	-0.012	11.92	1171	.097	2.47	15.17
4035	833	22.3	12.3	882.0	53	117	1	292	40		10.48	33.1	-0.061	10.23	1230	.027	.68	15.85
4492	0	22.3	11.6	868.0	51	0	0	286	45		10.04	34.5	-0.014	10.00	1369	.057	1.44	17.29
4923	888	21.2	10.9	855.0	52	236	4	281	50	0	9.60	34.7	-0.011	9.68	1501	.051	1.30	18.59
5360	0	21.0	11.1	842.0	53	0	0	279	55		9.72	35.8	-0.006	9.89	1634	.051	1.29	19.88
5836	913	20.4	7.1	828.0	42	166	2	263	60	0	7.47	36.6	-0.034	7.66	1779	.049	1.25	21.13
6775	939	18.9	7.7	801.0	48	192	11	259	70	0	7.78	38.0	-0.004	8.25	2065	.086	2.18	23.31
7668	893	17.4	5.0	776.0	44	187	12	246	80	0	6.53	39.3	-0.014	7.09	2337	.077	1.95	25.26
8584	916	15.2	1.8	751.0	40	189	15	233	90	0	5.22	39.8	-0.014	5.78	2616	.064	1.63	26.89
9523	939	12.8	3.0	726.0	51	190	14	231	100	0	5.75	40.3	-0.002	6.53	2903	.062	1.56	28.46
10450	927	11.1	2.0	702.0	53	186	13	224	110	0	5.40	41.4	-0.008	6.27	3185	.061	1.56	30.02
11323	873	10.0	1.1	680.0	54	174	9	217	120		5.08	43.0	-0.008	6.13	3451	.055	1.39	31.40
12220	897	8.2	-4.5	658.0	40	177	8	202	130	0	3.36	44.0	-0.017	4.14	3725	.045	1.15	32.55
13139	919	5.6	-3.4	636.0	52	192	8	200	140		3.68	44.1	-0.002	4.66	4005	.039	.98	33.53
14082	943	2.7	-2.3	614.0	69	211	10	198	150		4.04	44.0	-0.002	5.23	4292	.044	1.11	34.64
15007	925	.6	-2.8	593.0	78	223	11	193	160		3.94	44.7	-0.005	5.27	4574	.044	1.12	35.76
15863	856	-2.3	-4.0	574.0	87	238	13	187	170		3.62	44.3	-0.006	4.90	4835	.039	.98	36.74
16138	0	-3.0	-4.1	568.0	92	0	0	186	173		3.62	44.4	-0.004	4.97	4919	.012	.30	37.04
16603	0	-0.8	-34.6	558.0	6	0	0	161	178		.26	48.6	-0.055	.39	5061	.011	.27	37.31
16792	929	-0.8	-40.0	554.0	3	232	12	159	180		.15	49.3	-0.010	.19	5118	.000	.01	37.32
17708	916	-0.8	-50.5	535.0	1	219	13	153	190		.05	52.5	-0.007	.07	5397	.001	.03	37.35
18657	949	-0.8	-50.5	516.0	1	214	14	147	200	0	.05	55.9	-0.006	.07	5687	.001	.01	37.36

A FIN 062 (PAUSE 333331)

RAWINSONDE DATA (WBS-1) 03/11/80 1322:55
STATION, PNAS MIRAMAR, CALIF.
1115Z 08 AUGUST 1979
FOR OP. NO. NONE
ASCENT NO. 033
INTERMEDIATE OUTPUT VERSION NO. 45

H(FT)	HT DIFF	T(C)	TD(C)	P(MB)	RH	DIR	SPD	RI	MIN		AHS	PT	DNDZ	MIX(G/KG)	H(M)	PWIN	PWMM	PWSUM
445	0	19.5	17.7	998.4	89	320	1	353	00		15.00	19.6	0	12.83	136			
1088	0	19.1	17.3	976.0	89	0	0	345	08		14.62	21.1	-0.012	12.80	332	.115	2.92	2.92
1176	0	20.6	11.0	973.0	54	0	0	314	09		9.70	22.9	-0.358	8.49	358	.013	.32	3.24
1322	877	20.8	16.3	968.0	75	342	3	335	10	0	13.63	23.5	.146	12.07	403	.021	.52	3.76
1648	0	22.3	11.3	957.0	50	0	0	308	14		9.80	26.1	-0.082	8.88	502	.046	1.17	4.93
2161	839	22.3	14.7	940.0	62	360	2	318	20	0	12.25	27.6	.019	11.25	659	.068	1.74	6.67
2621	0	22.3	13.2	925.0	56	0	0	307	25		11.11	29.0	-0.023	10.31	799	.065	1.64	8.32
3089	928	22.3	12.1	910.0	52	348	3	299	30	0	10.38	30.4	-0.017	9.72	942	.060	1.53	9.84
3532	0	22.3	7.6	896.0	39	0	0	280	35		7.65	31.8	-0.044	7.38	1077	.048	1.22	11.06
3980	891	21.2	7.3	882.0	41	237	0	276	40	0	7.55	32.0	-0.007	7.37	1213	.041	1.05	12.11
4435	0	20.6	6.7	868.0	41	0	0	272	45		7.27	32.7	-0.010	7.21	1352	.041	1.04	13.14
4863	883	19.9	4.9	855.0	37	252	2	264	50	0	6.39	33.3	-0.019	6.32	1482	.035	.89	14.04
5296	0	19.7	-4.0	842.0	20	0	0	243	55		3.35	34.5	-0.048	3.41	1614	.025	.64	14.68
5735	872	19.1	1.6	829.0	31	225	7	250	60	0	5.08	35.2	.016	5.19	1748	.022	.57	15.25
6632	897	17.6	.6	803.0	32	208	11	242	70	0	4.77	36.4	-0.008	5.03	2021	.053	1.35	16.60
7517	885	16.0	-12.7	778.0	13	194	15	219	80	0	1.73	37.5	-0.026	1.90	2291	.035	.88	17.48
8424	907	14.0	-19.0	753.0	9	192	18	210	90	0	1.03	38.3	-0.010	1.19	2568	.015	.39	17.87
9317	893	12.1	-20.2	729.0	9	180	17	204	100	0	.93	39.1	-0.006	1.09	2840	.011	.28	18.15
9773	0	11.1	.4	717.0	47	0	0	225	105		4.79	39.5	.045	5.44	2979	.016	.40	18.55
10235	918	10.2	-3.0	705.0	39	174	17	216	110		3.75	40.0	-0.019	4.31	3120	.023	.59	19.14
11140	905	8.4	-5.3	682.0	37	189	13	207	120		3.17	41.0	-0.009	3.74	3395	.037	.94	20.08
12827	887	6.6	-10.3	660.0	28	193	15	196	130	0	2.15	41.9	-0.012	2.58	3666	.028	.71	20.79
12940	913	4.9	-8.7	638.0	37	204	13	193	140		2.47	43.0	-0.003	3.14	3944	.025	.64	21.43
13878	938	3.2	-9.3	616.0	39	220	13	188	150	0	2.37	44.3	-0.006	3.04	4230	.027	.69	22.12
14800	922	1.6	-29.0	595.0	8	233	13	171	160	0	.44	45.5	-0.018	.57	4511	.015	.39	22.50
15747	947	-1.3	-11.1	574.0	47	246	10	177	170	0	2.08	45.4	.007	2.84	4800	.014	.36	22.87
16674	927	-3.2	-25.7	554.0	16	254	7	163	180	0	.60	46.5	-0.015	.87	5082	.015	.38	23.25
17633	959	-1.6	-51.0	534.0	1	228	7	153	190	0	.04	51.7	-0.011	.06	5375	.004	.09	23.34
18578	945	-3.3	-52.0	515.0	1	221	12	148	200		.04	53.0	-0.005	.06	5663	.000	.01	23.35

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